

FORMAL DESIGN IN LANDSCAPE ARCHITECTURE

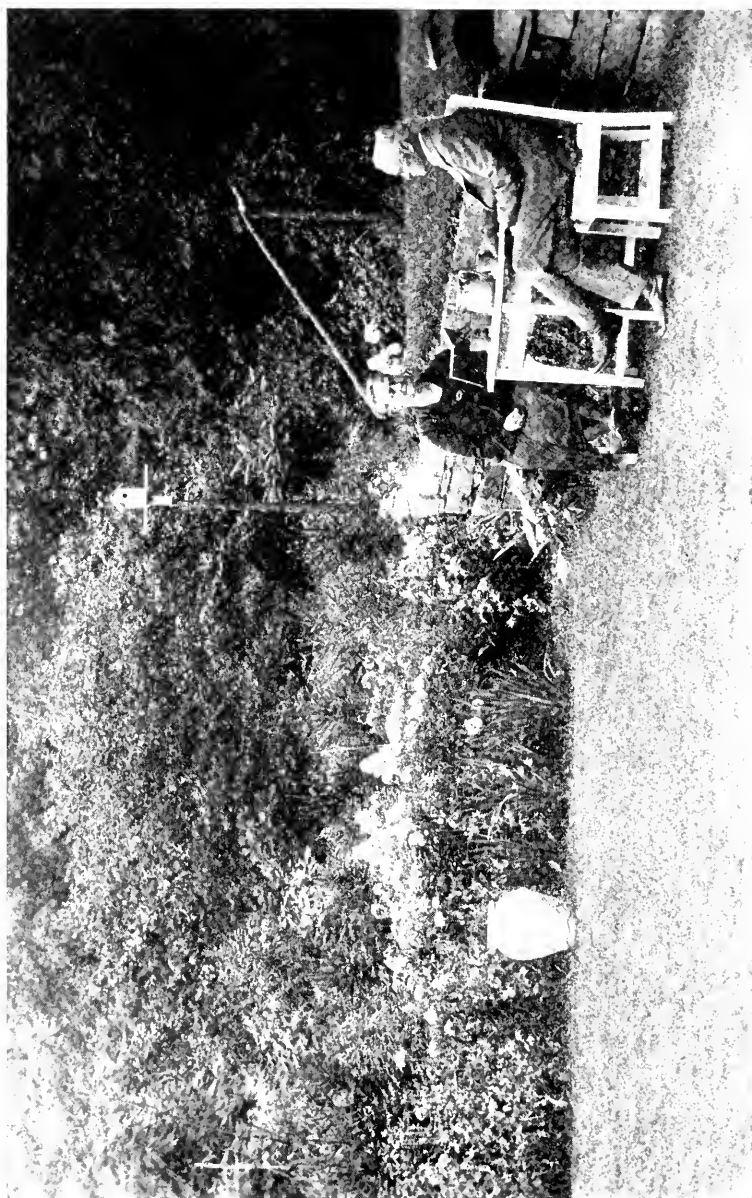


FRANK A. WAUGH



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FORMAL DESIGN
IN
LANDSCAPE ARCHITECTURE



HOME GARDEN, "DOMESTIC FORMULA"—See Plan, Page 50.

FORMAL DESIGN IN LANDSCAPE ARCHITECTURE

A Statement of Principles
with Special Reference to
Their Present Use in America

By FRANK A. WAUGH



Illustrated

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Inscribed to
Professor James Sturgis Pray
Teacher of
Landscape Architecture

151916

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PREFACE



IN THIS book no attempt has been made to present the history of formal gardening. Yet formal gardening has a history—a long and fascinating tale not devoid of significance for the American garden maker in the present exigent twentieth century. That history, however, has been frequently recounted by those who are more proficient than the present writer in all its details. It is hardly necessary now to rehearse or even to reinterpret the story of that famous past.

At the present moment it seems more profitable to inquire what this art of formal gardening means to America—to a land far, far removed from ancient Greece, from the glorious field of the Renaissance, from the wild dreams of the Louis of France and even from the achievements of Englishmen in Elizabethan Britain. What has the formal garden to offer to men and women who ride in automobiles and aeroplanes, who talk by telephone and sing by radio, who live on the plains of Texas, on the shores of Long Island or in the multitudinous bungalows of Hollywood?

Nothing could be plainer, one would think, than that the old gardens of France and Italy could not be copied in America. The details can not be reproduced, the forms will not fit. But more than that, and altogether more consequential, the spirit is utterly different. And if one wishes to express the spirit of his own time and country, so immeasurably alien to the spirit of the Old World, there must positively be a new beginning. One must start afresh from the new spirit and build upon that. One can put new wine into old bottles easier than a new spirit into century-old garden forms.

Yet of course there are some principles in art that are universal and as permanent as the human race. These principles guided the Greeks and perhaps they will guide the New Yorkers and the Missourians and the Californians if we in our day will be as attentive to sound logic as were our great predecessors. Certainly it will be worth trying.

To state these principles in the simplest possible way and to show how they work 'out under the conditions of modern life in America is the sole purpose of the present volume. To be intelligible rather than profound, to

realize all systems in terms of the present time and place, to find some way in which our own homes may grow in beauty more largely expressing the spiritual grace and power which is their ultimate character—this is certainly a sufficient ambition, even if history and philosophy be omitted and modern illustrative examples left to the many books already presenting them.

FRANK A. WAUGH

I

FORMAL DESIGN



JUST what is a formal garden? The answer is not difficult. A formal garden is simply one in which the parts are symmetrically balanced. There is balance, too, in the best informal gardening, but the balance is less obvious. It is never gained by placing one object directly over against its exact mate, as is the rule in formal balance.

Symmetry is of several kinds, but for most practical purposes these may be reduced to two, viz., bilateral symmetry and radial symmetry.

Bilateral symmetry is that type of structure in which each part is repeated on either side of a median line. It is represented by the human body with its left hand exactly balancing its right, each eye, ear, rib, having its mate on the opposite side. The human figure may thus be expressed in a simple diagram with the backbone for the central line upon which the symmetry is built.

All the higher animals are projected on the

same principle of bilateral symmetry. It is a model widely used by nature, especially in her most ambitious attempts.

The same principle has been very widely adopted by man in the practical and decorative arts. A steamship is bilaterally symmetrical; so is an automobile, with the exception of quite minor details; so is an ax, a revolver, a suitcase, a chair, a loaf of bread, a cravat pin and a thousand other manufactured articles of daily use. Apparently the human mind in working out these patterns has sometimes been imitating nature, either consciously or unconsciously. At other times the mind has been guided by purely mathematical principles of structure or purely decorative principles of design. Just how the race, working through ages of experiment, has reached its goal of bilateral symmetry in this case and in that doesn't much matter. The great fact is that this type of organization is widely accepted as natural, as structurally sound, as pleasing to the human mind.

Radial symmetry is that type of structure in which parts are repeated circularly about a center instead of along opposite sides of a line. Abundant examples are to be found in nature,



CORNER OF GARDEN—See Plan, Page 50.



SIMPLE FURNISHINGS ON A HOME LAWN
FORMAL TREATMENT OF A CALIFORNIA HOME

as the starfish, the snowflake, many flowers and most crystals. Abundant examples are seen also in the arts. Each button, dinner plate, watch, lamp-shade and a hundred other similar articles are circular in form and are often decorated upon their surfaces with figures repeated round the center.

So this type of symmetry also has been adopted by the mind of man as natural, structurally safe and pleasing to the eye.

When we speak of a formal garden, therefore, we mean one in which the ground plan is symmetrical, and this symmetry may be of any kind, though practically always it will be either bilateral or radial.

Indeed in formal gardening there is frequently a sort of double symmetry. In a large number of cases the garden is built upon two axes placed at right angles to each other. It may be symmetrical to both axes; or it may be completely symmetrical upon the major axis and partially symmetrical with respect to the minor axis. (See page 31.)

In books on landscape architecture a great deal has been written about the formal "style". This has also sometimes been called the Italian style, and again the architectural style. All

these terms are objectionable. No terms have been found, in fact, wholly pleasing and accurate. In such cases the simplest language is nearly always the best. Thus perhaps it is most satisfactory to speak plainly of formal gardening. If we must say anything more we may call it a mode of design rather than a style of gardening.

POETRY AND MUSIC

In all the other fine arts, just as in landscape architecture, both symmetrical and asymmetrical types of design are employed. The parallelism is significant and at some points helpful to the garden designer.

In literature prose and poetry represent respectively the asymmetrical and the symmetrical modes of composition—the informal and the formal. Good prose follows its own laws of structure quite as strictly as poetry, yet the result is less regular and in a sense more natural. Poetry is formal and in exactly the same way that some gardens are formal. Lines of equal length are balanced against one another; cadences balance and rhymes terminate verses. Some of the ablest poets, not satisfied with all

this symmetry, have so constructed their stanzas that one idea balances against another. Even some of the wild iconoclastic writers of modern free verse differ from the conservatives only in that they aim at a balance of ideas or of cadences instead of a balance of rhymes or meters.

Music of all arts is nearest in spirit to landscape architecture and has most to teach the spiritually-minded garden designer. In structure, too, as well as in spirit, music is much like the garden art. There is first the asymmetrical form in which cadences are free and irregular instead of balanced ("sonata form", symphonic music), and there is secondly the more common lyric and dance music made up of symmetrically balanced cadences and of equal periods.

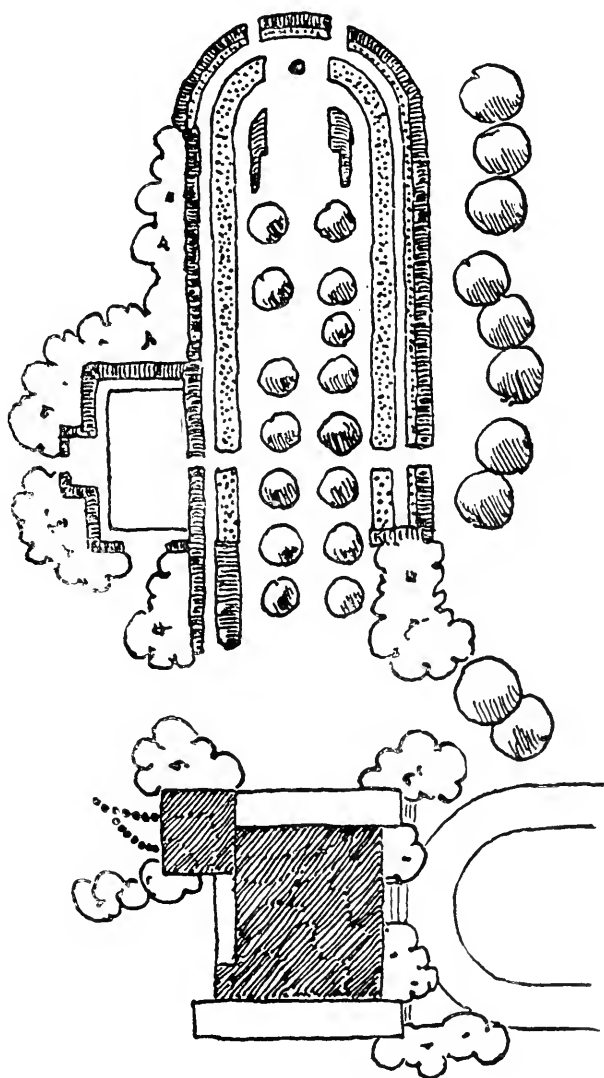
To follow out this comparison would carry us quite too far afield; but one important analogy ought to be noted. It will readily be agreed that poetry is generally suited for the expression of simple ideas in short form, while for the treatment of complicated ideas in extenso, prose is much better suited. A modern poem rarely grows to a length of more than a page, condensation being considered obliga-

tory. If one were to attempt to make a book of 600 pages in explanation of Einstein he would certainly not write it in poetry.

Likewise in music, church hymns, simple songs and dances practically have to be constructed in formal periods. The rhythms must be equally measured and must balance. But the ambitious composer of a large work, like an opera or a symphony, must adopt a much freer and more "natural" style. He would use a variety of rhythms, would give us cadences of divers lengths, and would not feel in the least obliged to cut up his score into periods of equal measure.

All of which states with equal accuracy the position of the landscape architect. For small areas where attention is closely focused, the formal treatment is best—all conditions being normal. While for areas measured in acres or square miles the informal "natural" style is almost inevitable. One could hardly think of applying a system of formal landscape design to the Grand Canyon or to the Adirondack State Forest Preserve.

The fact that the formal garden grows out of precisely the same principles of design as poetry and lyric music is at least suggestive.

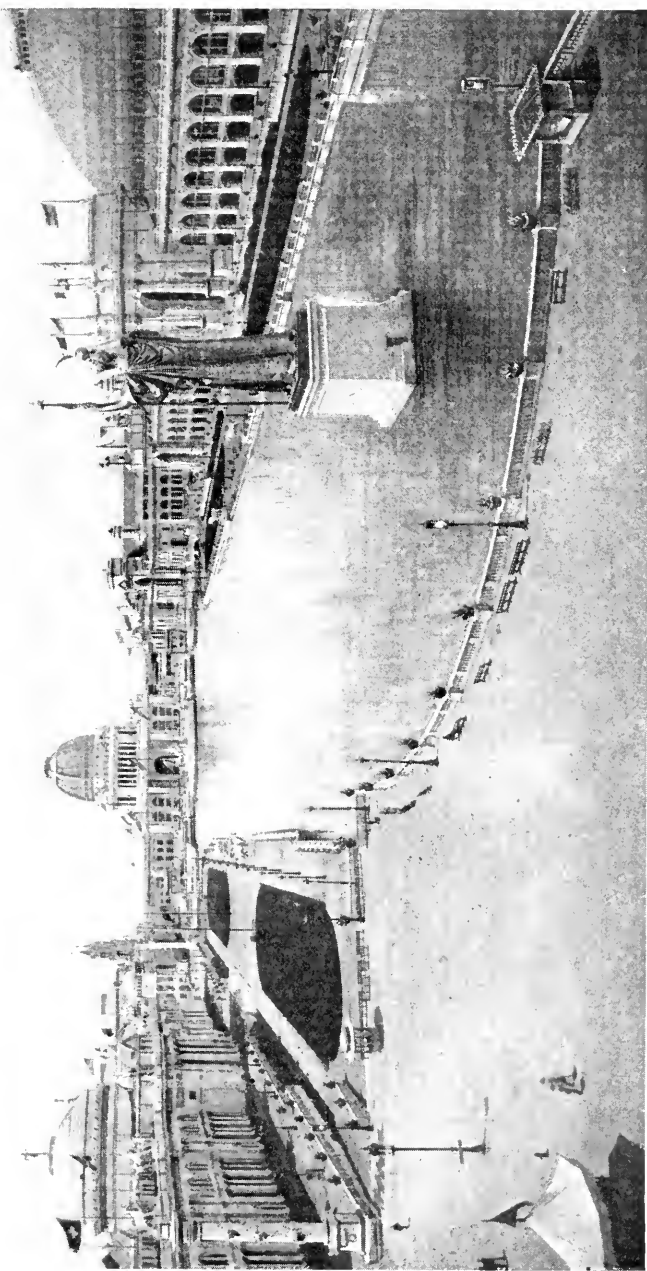


Horshoe Farm, Rapidan, Va.
No scale

The additional fact that this similarity extends beyond physical structure is even more important, implying that the spirit of the formal garden must resemble the spirit of poetry and of lyric music. Indeed there is more than an implication here. We may say with perfect confidence that the formal garden should always be poetic—should be lyric—should catch the same spirit which shines through the best of poetry and which sings in all simple folk-music.

STRUCTURAL REQUIREMENTS

These reflections come to their application rather easily. When we consider that no one can make poetry without knowing and observing the strict rules of poetic structure (rhythm, rhyme, cadence) we ought to see that a decently formal garden can not be made without equally conscientious attention to inevitable principles of structural design. Some uncultured persons do indeed write verses in which alternate lines end in rhyme and deceive themselves by calling it poetry. Just so there are too many hopeful citizens, of both sexes, making rhymed gardens—gardens which have a



HIGHLY FORMAL ARCHITECTURAL GROUPING WITH WATER AND GRASS
World's Fair, Chicago, 1893.



MODERN DOMESTIC EXAMPLE FROM CALIFORNIA

specious show of formality but which break all structural rules and which (what is much worse) fail utterly to capture any of the spirit of poetry.

It ought not to be difficult for any serious person to see that the maker of poetry or the writer of music must know and follow certain very definite principles. It ought to be equally clear that the maker of formal gardens must know the same rules, though in a different application, and must be conscience-bound to conform to them to the utmost. And finally, of course, everyone should see that mere conformity to rules, though it may give a structural righteousness, will never breathe into any garden the living spirit of beauty. Form and spirit are both essential. No honest garden maker would be content with a deformed or malformed body; nor would he be content to own a body "possessed of an evil spirit," as the Scriptures so aptly phrase it.

And we may say this, at least, for encouragement, that the poet or the garden maker who strives for perfection of form, is more likely to find his endowment of spiritual inspiration than the slovenly worker who disregards sound structure or the ignoramus who does

not know that structure grows logically from universal principles.

It is plain truth to say that the further extension of formal gardening in America depends upon a wider understanding of these principles. It is the aim of succeeding chapters to formulate these principles and to make clear their application in landscape architecture.

AVAILABILITY

In times now fortunately past there was a vitriolic controversy in England and America over the respective merits of the "natural style" and the "formal style." One party asserted dogmatically that the natural style was better because it was natural—that whatever was artificial was necessarily bad. The opposing party with equal intolerance insisted that every garden had to be an improvement on nature; that because houses, lands and streets were rectangular, gardens must be; that formal gardens were more elaborate, more curious, more interesting. At the present time all honest men are agreed that informal design (the natural style) is better for some places and purposes, while formal design is better

for others. It remains only to determine what mode of treatment will best fit given circumstances, and further what degree of formality or what degree of naturalness may be achieved under existing conditions. The theory that one mode is inherently better than the other is a wholly untenable prejudice. One might as well assert that prose is better than poetry and that therefore poetry should be abolished.


The present writer is of the opinion, however, that formal gardening has suffered a comparative neglect in America. Reasons for such neglect are easy to give,—so easy that they need not be recorded. If the idea, already stated, that every method of gardening is to be accepted strictly on its merits, the way is open for the best possible practice in the future.

Under such an unprejudiced view it ought to be clear that there are many combinations of practical circumstances which call for formal landscape design. A long avenue or mall is necessarily formal; a small city square is positively formal and any naturalistic landscape gardening on such a site is absurd; a small cemetery, strictly subdivided into little lots and blocks and filled with architectural monuments, can hardly be made into an in-

formal picture. Perhaps most of all will it appear that the small rectangular areas into which the average home lot naturally divides are clearly adapted to simple forms of symmetrical development, as are likewise the smaller areas of college campuses and many other tracts, public and private, with which amateur and professional landscape architects have to deal.

II

THE RECTANGULAR GARDEN

ULES in art are always dangerous. Their application is often doubtful, and the best of rules are cheerfully defied by the best artists.

Nevertheless rules may be useful for the beginner; and the settled worker comes to have rules of his own. It is only fair, indeed, to recognize certain structural principles, some of which at least are capable of general statement. And if there be exceptions to these rules they are for the man who knows and who may safely be a law unto himself.

With these limitations clearly in view the following rules are offered for the guidance of those who need them.

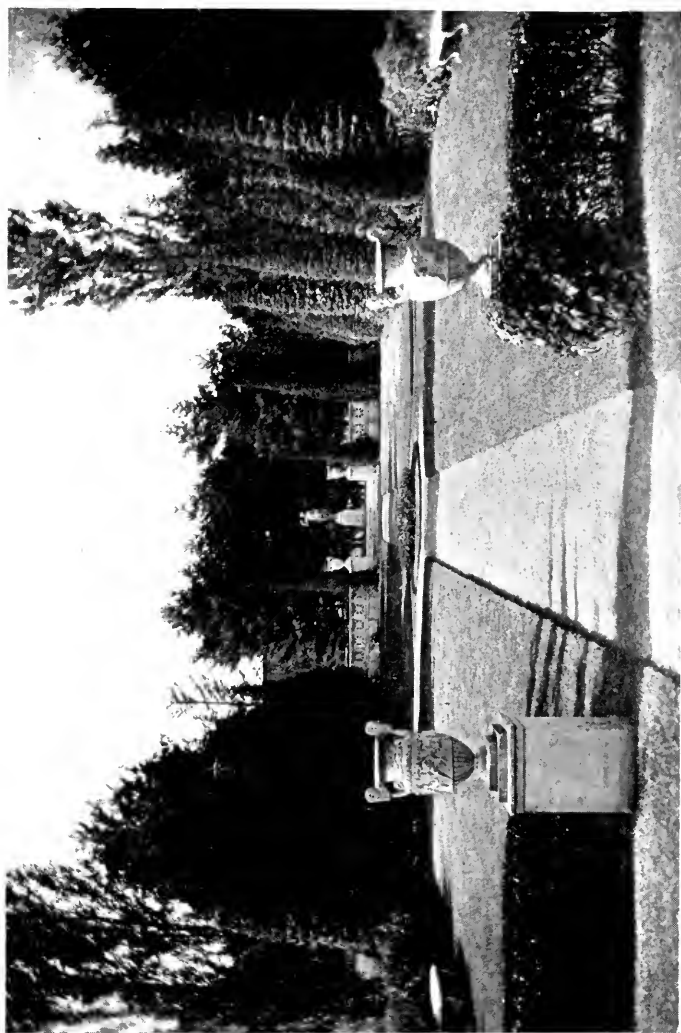
Now in making formal gardens it works out nine times out of ten that the area to be used is rectangular. Or if it is not strictly rectangular it can easily be made to approximate that form. For the design of a garden in this figure a fairly simple formula may be given—subject, of course, to the qualifications offered above.

SIZE

First of all we have to consider size. Formal gardening should be attempted only on relatively small areas. For the ordinary family garden one quarter acre would be the maximum allowance; for a very pretentious private mansion one to two acres; in elaborate public grounds including monumental public buildings three or four acres might possibly be used. But these figures are maxima, and best results will nearly always be realized upon areas much smaller.

Consider briefly what these quantities mean. For rough estimating one acre may be taken as a square 200 feet on a side. (This is slightly less than an acre, but near enough for garden estimates.) Thus we see that a plot of ground 200 by 100 feet would be one half an acre; one 200 x 50 feet would be one quarter of an acre. But as 200 x 50 feet is rather more than the size of an average town lot, we can readily accept the rule that the ordinary family will find a quarter of an acre the maximum size for a formal garden.

A garden 30 x 50 feet therefore would conform more nearly to the dimensions commonly available; and though this is only about one-



CLASSICAL DESIGN, RECTANGULAR FORMULA, AMHERST, MASS.



A FORMAL MALL IN A PASADENA, CALIFORNIA, ESTATE

twenty-seventh of an acre it is enough to yield a very decent effect. Indeed a little garden of this size can be made very delightful and wholly satisfactory. There is great danger in gardens of this type of laying out too large a space; the tendency to err at the opposite extreme is almost negligible.

EXTERNAL FORM

The area must be rectangular, or nearly so. Slight deviations from strict geometrical form are not noted by the eye and are not objectionable.

It is often practicable to make a rectangular area suitable for a formal garden upon a tract of irregular form by the simple expedient of cutting off the irregular portions for other uses. This process works toward a reduction in the size of the formal garden and is therefore usually advantageous. At the same time it may lead toward the definition of boundaries by fences or other enclosures, and that step will always yield a further benefit to the garden design. For it is strictly necessary that the formal garden be enclosed. (See Chapter VII.)

PROPORTIONS

In this rectangular space no definite proportion between length and breadth is obligatory, but best results can usually be secured with a ratio of about 7 : 5 or 8 : 5.

The most ineligible proportions are those which closely approach the square figure. Any ornamental figure, garden or bed-spread, ought to be distinctly square or distinctly rectangular. There is a favorite story in the western mountain country that the shepherd went crazy because he could not decide which was the long way of his bed-sheet (the sheet being square). The story is plausible enough, for any rational mind wants to know clearly what sort of a figure it is viewing.

The square garden (see Chapter IV) should be one thing, and the rectangular garden should be totally different. These two forms are structurally and radically diverse; and in designing a garden on the rectangular formula a first desideratum is to make its character perfectly clear. A figure which might just as easily be a square as a rectangle is no more satisfactory than a fish which may turn out to be either a star-fish or a mackerel.

On the other hand relatively long areas may

sometimes be managed with full success. Thus a long, narrow strip of land connecting two major units may be made into an attractive mall; and the treatment of any such problem will fall quite closely within the terms of the formula here outlined for the rectangular garden.

SURFACE

The area given to a formal garden should be level. At least it ought to be plane and approximately level, though a moderate slope may not be a serious detriment, especially if the slope be parallel with either axis.

Formal gardens have sometimes been successfully built upon steeply sloping land. In practically all such cases the land has been terraced, often with the interposition of retaining walls, to several levels. It is hardly necessary to remark that such garden construction is expensive, and that unless funds are sufficiently ample to carry out the details with some vigor the final result is highly unsatisfactory.

MAJOR AXIS

Each rectangularly formal garden must have as its chief structural feature a major

axis. In the large majority of cases this will be developed on the median longitudinal line. In exceptional circumstances it may lie to one side of this middle line; or in other exceptional circumstances it may be developed transversely to the greater length of the garden.

This major axis is the backbone of the garden. On its security the whole garden depends. The comparison of this major axis of the garden with the backbone of a vertebrate animal is something more than a convenient figure of speech. It is an analogy which goes as deep as human thinking. It should be clear, therefore, that this major axis must be strongly and agreeably designed, and nothing whatever in the development of the garden must be permitted to weaken it.

The manner in which such an axis is practically developed will appear more fully in following paragraphs.

MINOR AXIS

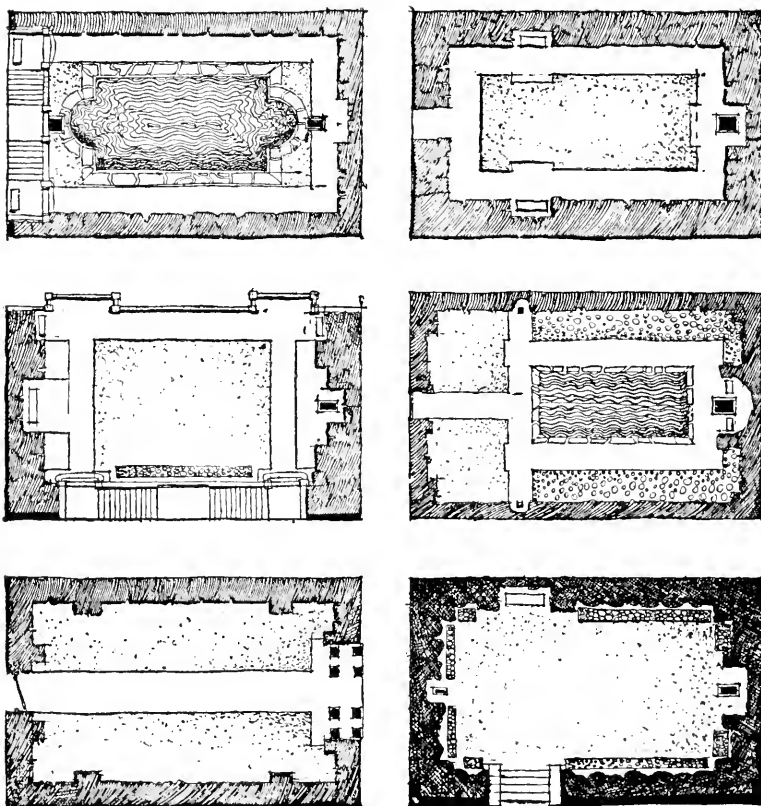
At right angles to the major axis a minor axis should be developed. In some cases two or three minor axes are permissible. In rare cases also the minor axis may be merely indicated or entirely suppressed.

This minor axis should be in every way subordinate to the major axis—in width, in length (usually) and especially in the importance of its termini. (See page 35.) In a garden having several minor axes, for example, a long mall with trifling cross-axes, their combined length should be less than the length of the major axis.

AXIS DEVELOPMENT

These axes, major and minor, are frequently treated as paths. This is the simplest and most obvious way of developing a formal garden; but it is by no means the only way, nor is it necessarily the best. The central axis line may be occupied by a water basin, or by a canal, or it may be an open panel of turf. We may perhaps say that the essential requirement lies in having this axis line open. Plantings or buildings which obstruct the view along the axis line (major or minor) are wholly inadmissible.

Indeed the axis, which, as we have said, must be the strongest structural member in the garden framework, is not developed by building directly upon it, but by two other quite different means. The first of these is the con-



Rectangular Gardens
Differing in Details of Plan

struction of adequate termini (page 35) and the second lies in the balancing of parts on either side of the axis. Thus the flower beds, seats, trees and other features are repeated as exactly as practicable on either side of the axis

line producing a palpable symmetry. This bilateral symmetry must be perfectly apprehensible to the eye, even at a glance; and this obvious symmetry fixes the axial line, even though that axis remains, like the famous equator of the earth, "an imaginary line".

TERMINI

Each axis must be provided with suitable termini. These termini must be objects of definite interest and beauty. The features most commonly employed are fountains, bird baths, sundials, gazing globes, seats, arbors, ornamental gateways, pergolas (of doubtful suitability), statues, tea houses, and small buildings generally. A single specimen tree or fine shrub may be used for minor axes in very small gardens. A broad outlook over several miles of beautiful scenery does not terminate any axis; and it is never permissible to allow any axis to disappear into an exterior view.

With reference to this last inhibition it should properly be confessed that this is the author's firm conviction, but that the rule has been frequently violated. While these violations stand upon high authority in some cases,

the author still feels that the rule as given is not only safest and best, but that in practically every case better results can be achieved under its guidance. The problem of treating exterior views will be referred to again. (Page 133.)

These termini must appear at the ends of the axes, and nowhere else. It is false design to have two or three objects of special interest strung along any axis. It gives the same psychological revulsion experienced when the preacher ends his sermon and then begins again to conclude in two or three other efforts. Thus a garden axis, like an after dinner speech, ought to terminate once for all, and that should be the end of it.

These terminal features must be carefully proportioned in size and interest to the length and importance of the axes on which they are placed. Features on the major axis must be distinctly larger and more interesting than those on the minor axis. In case several minor axes are developed their termini must be plain and inconspicuous; nevertheless definite terminal features must be provided. About the least that can be done is to place a chair, a vase or a specimen formal tree at the end of these most inconspicuous axes; for though these

members may be never so mild and gentle they must still be visibly present each in its proper place.

INTERIOR VIEWS

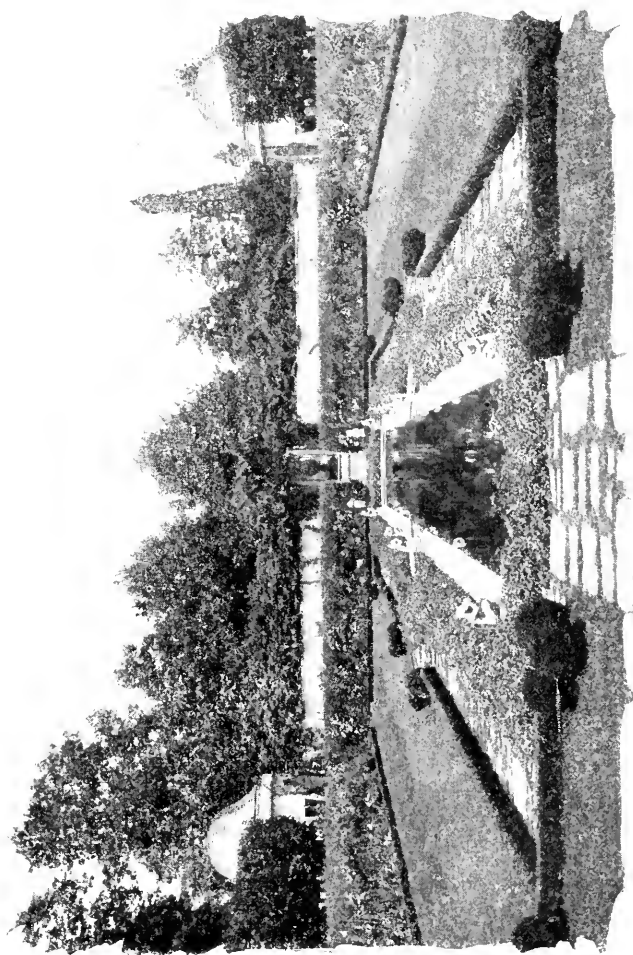
While the smallness and snugness of the formal garden exclude the possibility of any grand views, still there should be innumerable good pictures. Many of these ought to be beautiful, even exquisite; for the possibility of such intimate interior pictures is one of the greatest of all reasons for making a formal garden in the first place.

It might be expected, from the importance already attached to the garden axes, that the axial pictures will stand above all others. But in a good garden this is not so clearly the result as one might expect. The quartering and unsymmetrical views of this symmetrical structure should be almost or quite as good as the fully balanced pictures upon the middle line.

One may easily test this same principle in architecture. There are millions of purely symmetrical buildings in the country, from the replica of the Parthenon at Nashville to the railroad station at Washington, yet how seldom does a good photographer make his pic-

ture of one of these buildings straight head-on? Really, hardly ever. Nor do we, stopping to admire such buildings, prefer the axial view. Rather do we choose to look at them from an angle.

Yet, while it is of capital importance to elaborate the formal garden in such a way as to make it yield an unlimited number of intimate beautiful photographable pictures, the space must not appear crowded nor cluttered. In particular should we avoid cutting up the small interior so as to lose the longest cross-views of the best features—features which, if properly placed, will occupy the margins of the garden. Fountains, arbors, belvederes, etc. should not be built within the garden so as to obstruct the general view. Under no circumstances should anything be built upon any axis intermediate between the termini in such a manner as to interrupt the axis line. The intersections of axes may sometimes be marked by pools of flat water (not playing fountains). Pools in this position are attractive on account of the reflections they offer toward the principal points of view.



SEVERELY FORMAL RECTANGULAR GARDEN FEATURING BOX EDGINGS



"BROOKSIDE," Mr. Ferruccio Vitale, Landscape Architect

OPEN SPACES

Even in the smallest garden there should be some free open space, usually carpeted with turf, but in special cases paved with tile or bound with gravel or given to flat water. Flower beds are often introduced freely, sometimes profusely into formal gardens. As a general rule, subject to possible exceptions, these will prove most satisfactory if disposed along the margins. Placing them in the centers of the quadrants can rarely, if ever, be justified as good design.

ARCHITECTURAL DETAILS

Details of architecture and sculpture must of course be kept consistent throughout the garden. Simple and classical forms are usually to be preferred. The architectural style most approved by modern taste is undoubtedly that of the later Italian renaissance. There is visible here and there a tendency to use so-called "rustic" construction, but this can hardly meet the approval of the best taste. One might imagine using a cigar-store wooden Indian or a Hopi hogan in a formal design, but their inappropriateness is so manifest as hardly to require a word.

However it must be emphasized, in view of what actually happens, that some experience, a lot of common sense and a little uncommon good taste are needed to insure quite the best selection of architectural features and furnishings for any garden.

Much depends further on bringing all these features and furnishings into scale. A pergola may be so big and coarse as to overpower a whole garden; or a bird bath may be so small and dinky as to be lost amongst the roses. In this very important matter of keeping all the elements of the design in scale—that is in suitable proportion to one another—nothing will serve except good taste refined by experience. No rules will be of real use.

COLOR EFFECTS

The temptation to do color patterns in the formal garden is almost irresistible. While it is important always to observe the ordinary rules of color harmony—not to plant pink mallows with red zinnias and not to have any Anthony Waterer spirea anywhere,—still it may well be doubted whether the refinements of color scheming so well known to interior decorators have any real place in landscape architecture.

III

THE DOMESTIC FORMULA



VERY formula is subject to modification in its application to an actual problem. When a particular piece of land is to be developed, for example to make a home, the high desideratum is not to illustrate a formula but to satisfy certain practical needs. Thus it transpires that a perfectly correct design is seldom achieved, whether in radial formality, rectangular symmetry or in the so-called and well-beloved "natural style".

Such departures from formula, however, raise a nice question. If they are wisely made to meet quite definite needs which could not be satisfied under the rules then the sense of fitness will amply justify them. But if, on the contrary, the logic of the ideal plan is broken to please a personal whim, it is plain that the first result has been damaged.

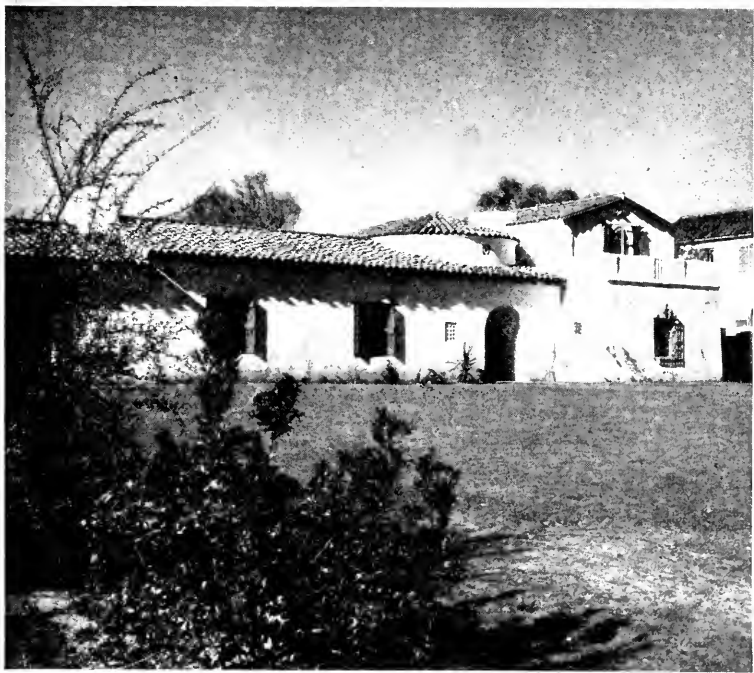
Special wisdom is necessary when it comes to the application of styles or formulas to the design of home grounds. The effort to meet the practical requirements of this almost universal problem while at the same time cling-

ing to a pet theory of "the natural style" or to some equally arbitrary theory of "formal gardening" has done much to discredit the whole doctrine of landscape architecture, especially in America. If we will clear our minds of prejudices, however, and approach this fascinating problem from the standpoint of simple necessities we may find that, somewhere along the way, there will be a favorable opportunity for the application of any rational formulas which we have fairly tested and understood.

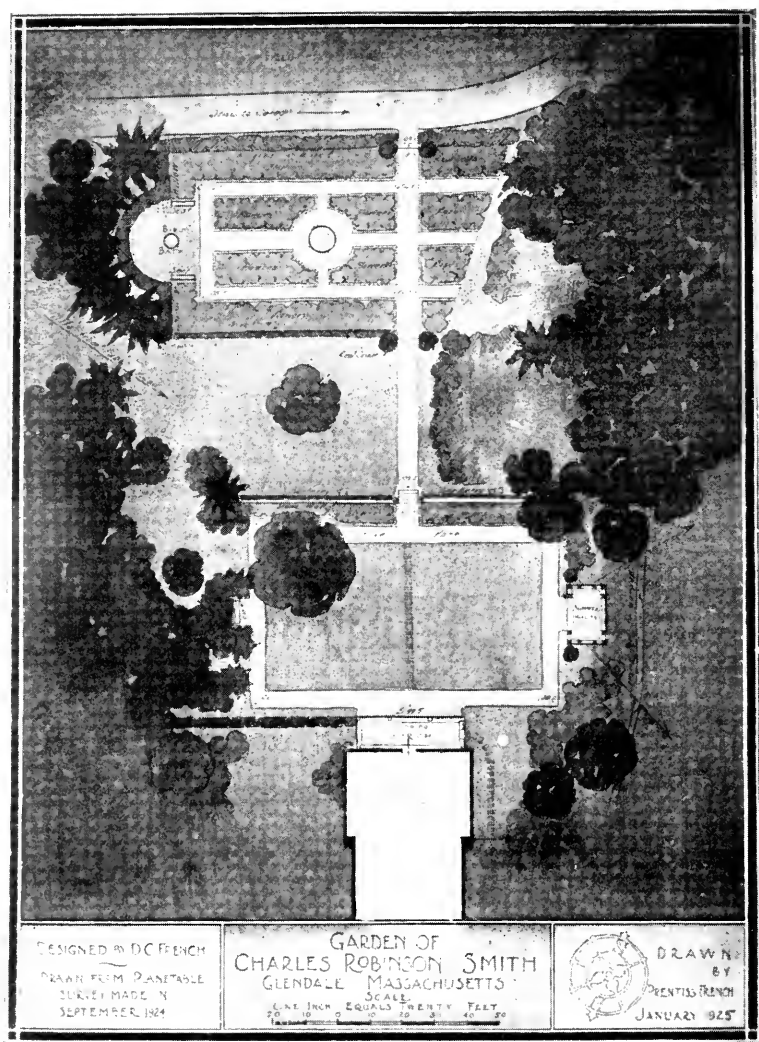
EXISTING CONDITIONS

The infinitely multiplied problem of making a home out of a house and a bit of ground presents certain controlling conditions which are so nearly universal that they may be safely generalized.

First to be considered is the tract of land itself. This is limited in extent. Even if a billionaire owns "all outdoors" he will select one spot in which to build his mansion and will set apart a relatively small tract to be developed with the house. But in 999 out of 1,000 cases the home is built upon a small lot. This is a city lot 40 x 80 feet, or a village lot 60 x 200 feet, or a suburban tract of two or



GARDEN PANEL; See Plan on Reverse of This Plate Indicating the Lack
of Stiffness in Good Formal Design
Below: SPANISH STYLE IN CALIFORNIA



GARDEN PLAN ON THE "DOMESTIC FORMULA." By Mr. Daniel Chester French

three acres. In a very large majority of cases the area will be a simple rectangle. When not strictly rectangular it will at least be bounded by straight lines and will be readily reducible to two or three connected rectangles.

Then there is the house—the principal figure to be placed on this land. It, too, will be rectangular in plan, or a combination of simple rectangles. Practically without exception it will be placed with its principal lines parallel with the principal boundary lines of the lot.

If other items are to be added, such as a garage, a chicken house, a tennis court, these likewise appear upon the plan as rectangles.

All these steps come by necessity. What we find, therefore, at the moment when we begin our landscape gardening, is a large rectangle (the land) broken up by a series of smaller superimposed rectangles. The inevitable result is that *we have presented for our development a series of small, more or less connected, rectangles*. These have a variety of form and aspect, perhaps show differences in soil, and are to be kept for a variety of uses. Our problem has now shifted from the idea of developing one relatively large unbroken tract to the

more difficult necessity of developing several diverse little tracts and of bringing them into substantial unity.

SUBDIVISION ACCORDING TO USE

At the outset we come upon the well-established principle of subdividing domestic grounds according to use into three categories, viz. (a) public grounds, (b) private grounds and (c) service areas. The front yard, next the street, will be published to all passers. The private garden, or gardens, will be hidden from public curiosity. The service yard, where the washing is hung out or the wood-pile piled, will also be an area to itself, separated from both the front yard and the private garden.

This highly logical subdivision of land corresponds to the classification of spaces within every well-planned dwelling house. The front yard corresponds to the front hall and reception room; and the front hall opens onto the front yard. The family garden, or gardens, correspond to the sitting rooms, library and other private rooms within the house, and should connect directly with those rooms. The service yard is the analog of the kitchen and

the laundry and should obviously be connected with them.

In meeting these three practical requirements we have made obvious progress toward disposing advantageously of the miscellaneous rectangular patches turned over to us. The space between the front of the house and the street is the front yard; a small space at the poorest side of the house has become the service yard; and the larger remainders,—we hope on the sunny and sightly sides of the house,—become the private grounds. When these three assignments are separated by hedges, walls or trellises, as is plainly desirable, our rectangular subdivision of the property has been further emphasized.

That larger portion which has been assigned to family use may now be further subdivided. There may be room for a tennis court, for a croquet court, for a flower garden, for a special rose garden, for a children's play court, or for such other special uses as the composition and tastes of the family may suggest.

ANOTHER FORMULA

All these considerations bring us to a point where we may safely state a new formula

covering the design of typical home grounds. This formula, when once worked out and understood, will be found applicable, with suitable modifications, to other problems only partially domestic, e. g., to hospital and school grounds. We may now state our formula rather succinctly as follows:

1. The grounds should be subdivided into several parcels, mainly of rectangular form. How this subdivision proceeds logically from necessity has already been explained.

2. Such subdivision will be based primarily on use. There will nearly always be (a) an entrance area or "front yard", (b) a service area, and (c) a private yard. The private grounds may be further subdivided, according to their size and the uses required, into such areas as childrens' playground, tennis court, croquet court, flower garden, rose garden, reserve garden, bird garden, poultry yard.* etc., etc.

3. These several areas should not be uniform in size, nor (except for their rectangular lines) in form. If they can be placed at differ-

* The poultry yard may be assigned to the service area if preferred. The same might be said of the vegetable garden. The garage and automobile turn will preferably fall to the service area.

ent levels the arrangement is usually advantageous. Thus it becomes a merit of this formula that it deals easily with unlevel terrain.

4. These several areas should be shut off from one another and from adjoining property more or less completely by walls, buildings, trellises, hedges, trees or shrubbery plantings. Some of these division screens will plainly need to be more exclusive than others; and both taste and ingenuity will be called upon to make them effective without being obtrusive or otherwise objectionable.

5. Each separate area must be given some distinctive character derived either from its use or the introduction of some definite motive. Thus one portion might be a wild garden in the natural style; one might be a very formal tea-terrace; one might be a garden theatre. In short these several units may be developed on quite different formulas.

6. Circulation must be provided through these several areas; and the lines of circulation will usually serve to connect and unify these separate parts. Paths, steps, pergolas,* corri-

* The pergola here comes to its proper use as a connecting passageway between garden or building units rather than as a detached garden feature. The latter method of using the pergola is often seen naively and unconvincingly used in American gardens.

dors used for connection, must be interesting without being obtrusive.

7. Relatively large areas of smooth turf are desirable. A few small spaces may be paved with tile, stone, brick or clay.

8. A few good shade trees are almost essential, but shade can easily be overdone. In some localities a windbreak will be a practical requirement, and this should become a part of the primary design.

9. Shrubs will be used mainly as foundation plantings about buildings or in making up the division screens between unit areas. They will seldom or never be placed as individual specimens or in detached beds. In the screen plantings they may be unpruned and informal or they may be sheared to straight hedges.

10. Every home place, unless of very restricted area, should also include one or more good showings of hardy flowers. Bright and cheerful flowers need not be confined to set flower gardens; neither should they be scattered aimlessly everywhere.

11. Every home garden should be amply furnished in some of its private compartments. Furnishings may include shelters, seats, tables,



GRASS PANEL IN SMALL GARDEN—See Plan Page 50



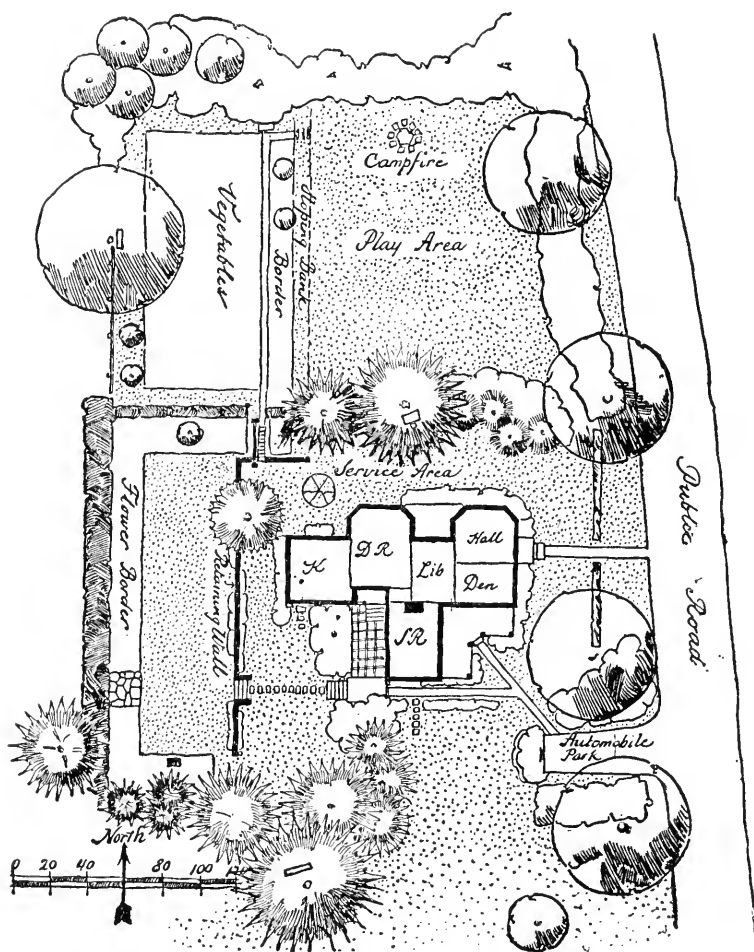
INTIMATE HOME GARDEN IN PASADENA, CALIF. Mr. Paul Thiene,
Landscape Architect

sundials, bird baths, gazing globes, statuary, fountains, etc.

12. Water is very desirable in the home garden. It may be introduced in formal pools, playing fountains or in semiformal canals. In those rare instances where running water is available, or an exterior view upon some river, lake or the ocean, every effort should be given to realizing the full benefit of such extraordinary resources.

Thus our problem works out very simply. Each step follows logically from the conditions given. We have met all the necessities. The service has been duly provided; there is a decent front yard conforming to the good American custom; and the larger portion of the grounds has been utilized for the privacy and delight of the family.

This is the way the solution presents itself to most intelligent amateurs, and this is the way the home-grounds problem is actually handled by nearly all the professional landscape architects. The result is wholly satisfactory, but it assuredly is not the "natural style"; neither is it the "formal style" as usually expounded. It might better be called the "domestic style", since this formula states the



Example of the Domestic Garden
The Author's Grounds

method really followed in tens of thousands of cases. It is more properly a formal, rather than a natural, mode of design, since it is founded upon purely geometrical figures. Furthermore the interior treatment of our several rectangles is apt to be formalistic rather than naturalistic, for very obvious reasons.

Might it not be a happy ending, therefore, to all controversy about the inherent desirability of formal or natural styles if we could all recognize the simple and significant fact that we have actually developed in America a domestic style of our own which fits our needs, expresses our best taste and is beholden to nobody?

IV

RADIAL DESIGN



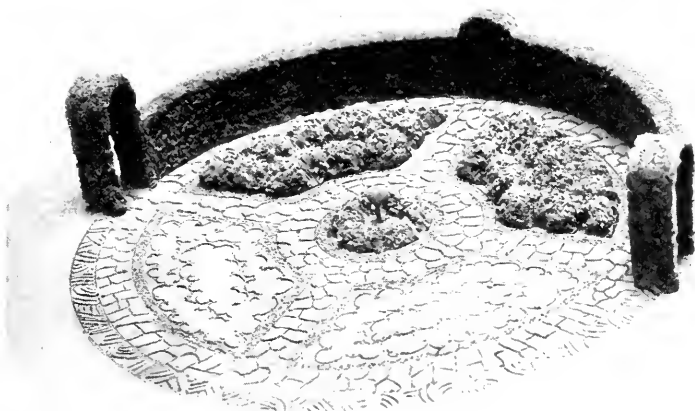
ANOTHER form of symmetry is found in those figures which radiate from a center, or in which decorative or structural units are repeated at regular intervals and at equal distances from the center. The circle is the type of all such figures; but any regular polygon may be treated in the same way. The square may of course be treated either as a rectangle, in accordance with the formula proposed in Chapter II, or as a radial pattern. In the latter case the principal decorative object would be placed at the center—a development radically different from that used when the square is treated as a rectangle. In most practical instances it will doubtless be more effective to develop the square radially, placing the principal figure in the center, rather than to treat it as a rectangle with the principal objects on the margin.

Figures in radial pattern occur frequently in nature. The corollas of most garden flowers present such a figure. The star-fish is a notable example in the animal world; but there are

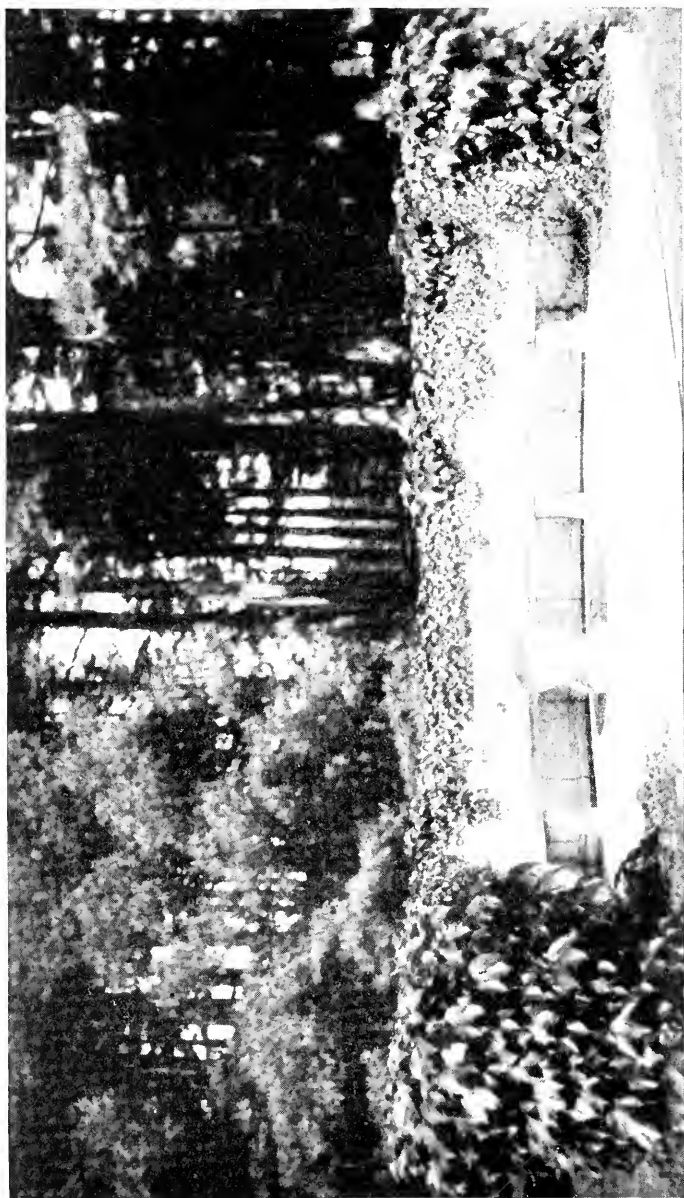
whole orders of animals conforming to this pattern. Many minute organisms, such as diatoms, exhibit very regular and beautiful examples of radial structure. In inorganic nature many crystals—perhaps most—follow the same plan. A good example, and certainly one of the most beautiful, is found in the snowflake.

Thus when man comes to use radial figures in industrial or artistic design he is not inventing anything new—only making use of a type freely and largely offered to him by Mother Nature. How widely man has accepted this teaching will be seen at first glance. Buttons, table plates and saucers, harness ornaments, flower beds, some windows, light fixtures, many articles of furniture, and hundreds of other objects promptly come to notice as examples.

In landscape architecture, too, the radial figure has been adopted. If flower beds are too trifling to serve as examples there may be found a certain number of authoritative rose gardens. The famous rose garden in Elizabeth Park, Hartford, Conn., is of radial design. In fact the old English tradition, not uncopied in America, was to make the rose



CIRCULAR PATTERN BEDDING ON A CITY BOULEVARD, HOUSTON, TEX.
MODEL FOR A CIRCULAR ROSE GARDEN



SEMI-CIRCULAR EXHEDRA IN A MASSACHUSETTS GARDEN

garden in the form of a circle. Then there is the outdoor theatre which quite naturally takes the figure of the semi-circle and so comes in for radial development.

It may be pointed out further that small enclosed courtyards are often treated in the same manner, a fountain or other principal figure marking the center. And it may be fairly surmised that this radial formula might be used advantageously in the solution of a considerable number of problems. At any rate it will be worth while to consider how this form of symmetry, so well authenticated by nature and so freely used by man, may be applied to garden design.

THE AREA TO BE DEVELOPED

Any space to be developed as a formal garden upon the radial formula should be level. To be more precise it must be plane and approximately level. No serious departures from this rule could be tolerated.

Secondly the area should be small. It has already been argued in Chapter II that the rectangular formal garden must be comparatively small, but the radial garden must be smaller still. Leaving room for some excep-

tions we may say that the radius should not be more than 50 feet. In most instances the space treated would be considerably smaller even than this. (A radius of 50 feet would describe an area of a scant quarter of an acre.) For a tidy rose garden in a private home yard a circle with a radius of 12 feet would be quite satisfactory. The patio of a comfortable California or Florida house might be developed in the radial manner upon a radius of 25 feet or less. A private garden theatre could be built in a semi-circle having a radius of only 30 feet and seating comfortably 150 persons.

One of the compelling reasons for keeping the radial figure small in gardening lies in the fact that unless the visitor can see the whole pattern at one glance he will not be able to understand the design, and unless the design is quickly grasped and easily appreciated the whole effort is lost.

Thus while there are exceptions to this rule (such as the large football stadiums, the Place de la Concorde, Paris, and similar public squares) the general practice must be to restrict radial design in landscape architecture to quite small spaces, and generally to favor decidedly diminutive areas.

EXTERIOR FORM

The area to be treated should be a square, a hexagon, an octagon, or one-half of one of these figures. Of course it is wholly practicable to plan a regular dodecagon or to lay out a figure having 42 equal sides; but when it should all be done and the roses growing it would hardly be possible for the human eye to distinguish the figure from a circle. The old geometrician's puzzle of "squaring the circle" is very easily solved in the garden.

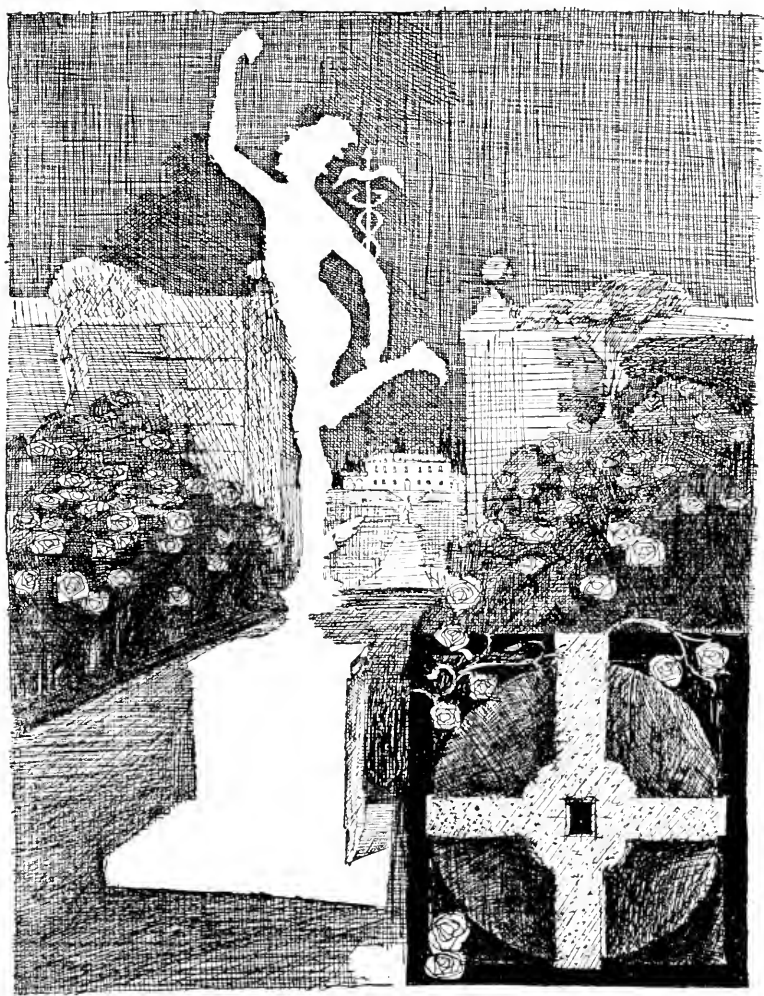
Slight deviations from a strictly regular form may be accepted without difficulty; or an area which is approximately square (for example) may be easily brought to the exact dimensions desired by readjusting the margins,—shifting a hedge on one side or making a new wall.

ENCLOSURE

The garden should be entirely enclosed by hedges, screens, walls, buildings, or combinations of these elements. The demand for enclosure, already argued with reference to the rectangular garden, is even more imperative here. The radial garden is a small, simple figure which relies almost wholly for its effect

upon a quick grasp of its geometrical unity. If the view is permitted to wander away to other objects outside this area the significance of the whole pattern is promptly and irretrievably lost. The fact that the center of interest is the physical center of the area also adds to the demand that all attention shall be turned in that direction.

In a properly handled garden the enclosure naturally becomes an interesting and delightful part of the picture and a wholly acceptable expression of the atmosphere of the place. One can imagine a square space enclosed by high stone walls forming a prison; but a garden can not be like that. The enclosing walls will be covered with ivy, or with espaliered fruit trees, or fronted with gallant rows of hollyhocks or soft blue delphiniums. Or the enclosure may be of trellis covered with climbing roses; or it may be made up of verdant hedges. A garden patio might be surrounded on three sides by the house itself and on the fourth side by a pergola. Yes, the enclosure should be as interesting, homelike and delightful as possible.



The Rose Garden
Enclosed—Plan in Lower Corner

CENTER OF INTEREST

Yet the main interest must be at the center of every radial garden, and the marginal treatment should not include mass effects on such a scale as to compete at all with the central feature. Entrance gates present points of danger, since these may be easily played up too prominently.

For the most essential rule for the radial garden is that the geometrical center of the area is the center of interest and should be occupied by the principal structure. Figures most commonly used are pavilions, temples, fountains, statuary, sundials, gazing globes, bird baths, etc.

A certain amount of tradition adheres to this practice. For example a sundial is considered especially appropriate to a rose garden; and classical models are considered especially proper for all features—either the classic Greek or the Italian renaissance. It is better in such matters to lean on tradition. If one must exercise an iconoclastic spirit he can find better scope for it elsewhere. For example one might think of putting an Alaskan totem pole in the center of his formal garden; and while possibly this would be no

more foreign to Indianapolis or Atlanta than a Greek Pan or a renaissance sundial, yet the affinity of ideas is distinctly less. So we say it is better to be somewhat formal and conventional in a formal garden.

The capital importance of this central feature demands that it shall receive the utmost attention of the designer. It must be a figure of unquestionable dignity and beauty. In size and richness it must be nicely proportioned to the size and elaboration of the garden.

SUBDIVISION

Paths will be laid out as radii from the center. Their width will be governed, as far as possible, by the size of the garden with a view to keeping them in scale. These paths should be of even width,—not growing narrower toward the center of the garden. They may be of grass, of gravel or of random paving stones. Brick walks are usually less appropriate, unless brick walls or brick buildings conspicuously surround the garden. Plain cement is hardly ever admissible.

The walks may be effectively edged with dwarf box, with euonymus, with sweet alyssum

or with other convenient garden materials. In some cases brick edgings to gravel walks may seem agreeable, or other expedients of a similar nature may be used.

These radiating walks may or may not have terminating features at the points where they intersect the garden periphery. It is all a problem in scale. In a large garden with heavy enclosure, some simple termini will be needed. But they must be kept clearly subordinate to the chief feature occupying the garden center.

These marginal termini may be seats, small statuettes, bird houses, small formal trees, or other objects of similar value. There may easily be one or two entrances to the garden which can well be dignified by simple gates or arches.

Flower beds, when introduced, will be laid off between the radiating walks. They should conform strictly to the structural lines of the garden.

It may be remarked that most of the radially designed gardens already made in England and America have been pretty well filled with flower beds. This is indeed a most admirable pattern in which to lay out garden beds for

roses, peonies, or for miscellaneous perennials or annuals. Nevertheless it may be suggested that, considering the radial garden on its own merits, it may often be found worth while to leave more open space, especially about the center. The value of such open spaces, particularly when in good lawn, is well known for rectangular formal gardens; and while it is seldom pertinent to make a radial garden seem "roomy," still there is no merit in making it seem crowded. In many cases, in short, it will seem wise to retain a certain free space, and more so if this openness helps either to emphasize the general garden structure or to exhibit to greater advantage the commanding central feature.

COLOR EFFECTS

Those ambitious gardeners who insist on trying for color patterns in their gardens will find the small radial garden the best scene for their experiments. Its strictly limited size will prove a distinct advantage. And since the plan-pattern of the garden itself is to be emphasized this end may be gained in part by color massings. Such massings will be more effective if placed toward the margins rather than

at the center of the garden. The varied tones of green and gray available in hedge material offer a particularly inviting suggestion for the garden enclosure.

V

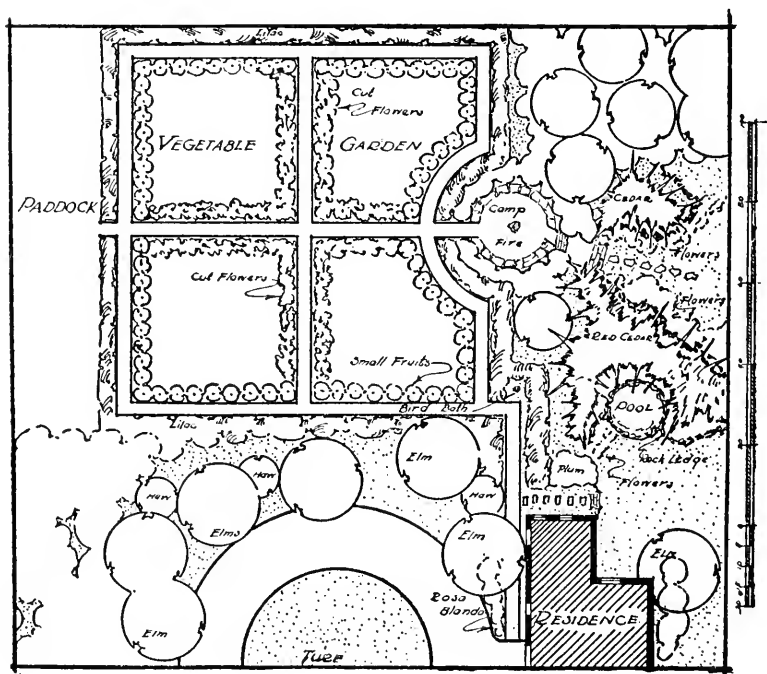
SPIRIT AND MOTIVE



LANDSCAPE architecture in the formal mode stands in palpable contrast to work done in the naturalistic or informal mode. This striking contrast is seen by the world at large in its physical aspects. Yet this external difference must remain forever unjustified unless it corresponds to and expresses a deeper difference, to-wit, a spiritual character. Neither mode of landscape architecture can live by its physical body alone; each must have a soul. No mode of expression is worth anything unless there is something to express.

Now it might be said, truthfully, though very broadly, that the "natural style" in landscape architecture attempts to express the spirit of nature in its diverse forms and moods. And in contrast to this statement we might say that the "formal style" attempts to express the spirit of civilization, i.e. of human culture, and especially the spirit of man's mastery over nature. Both statements are broad and sub-

ject to adjustment on details, but both are essentially true.



The Vegetable Garden Treated with Simple Formality

Jens Jensen, Landscape Architect

Man is a strange, curious and inconsistent animal. At times he longs, with a burning heart, to return to Mother Nature. He delights in the wild. The native, unbroken forests, the unpolluted streams, the nascent

moving sand dunes, the pristine prairies, the unconquered mountains, appeal to him irresistibly. At other times he glories in his conquests over nature—in his productive farms, his graceful bridges, his flying aeroplanes, his cities, his libraries, his instruments of music. Both moods are human; both wholesome; both can be expressed in the forms of landscape architecture.

Our present task requires a closer inquiry into this spirit of civilization—this feeling of man's mastery over nature. It is, of course, a complex phenomenon—complex and elusive. Yet a few of its larger specific elements may be separated and described.

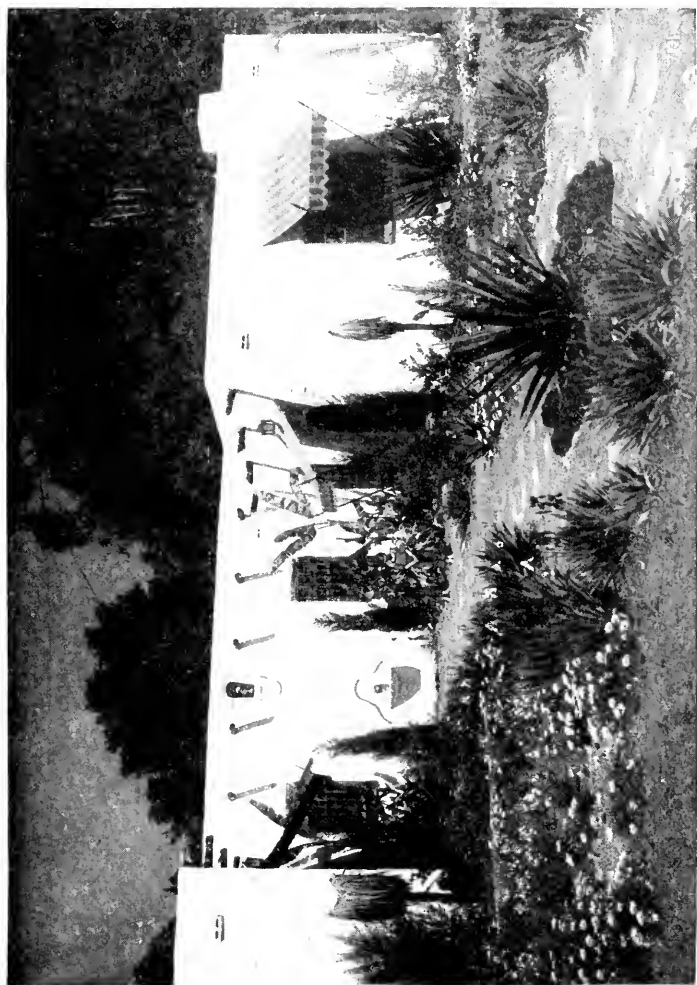
SPIRITUAL SPECIES

First we may fairly place the geometric idea. When ten trees are planted in a row at equal intervals they represent the human idea of order. They do not look like the work of nature. Yet they satisfy a powerful human instinct. A large part of formal gardening goes no further than this. It presents objects in orderly geometric arrangements. Every such work speaks in unmistakable terms of man's interference with nature. It says

“Nature did not plant these trees—man did.” Every straight street, every circular flower bed, and every rectangular potato field speaks the same language.

Decorative design in general is geometry raised to a higher power. Yet in decorative design we have other elements added, as the love of color, a feeling for texture, a sense of rhythm and an adaptation to utilitarian purposes. This spirit of decorative design develops early in human culture. Even savage races show it strongly; and it is not hard to see that in their tribal experience it clearly represents the measure of their human achievement in the constant struggle with nature. So the flower garden made by the pioneer’s wife in the first clearing in which appear color, geometrical forms and sense of balance. So, too, in the elaborate parterres of the old French gardens there was little more expressed than had been said more simply in the gardens of ten thousands peasants.

Not much later appears the spirit of social display. Civilization, being gregarious and social as well as competitive, early witnesses the attempt of one person to impress others with his wealth, i.e. with his mastery over cir-



MEXICAN MOTIVES IN A CALIFORNIA GARDEN



SEMI-CLASSICAL TREATMENT OF SIMPLE ELEMENTS

cumstances. This spirit of social display has been patently expressed in many of the most famous formal gardens of the world—in the “Hanging Gardens of Babylon,” in the great Italian villas, in Schoenbrunn, Sans Souci and notably in Versailles.

Then there is the spirit of imperialism. Or if anyone objects to that word he may call it the spirit of triumphant nationalism. The Place de la Concorde, the civic center in San Francisco, the entire plan of Washington, are nothing more nor less than expressions of this spirit in terms of formal landscape architecture. It is not necessary here to raise any question as to how much of this imperialism is wholesome or how much of it is ignoble, since all of it, good and bad alike, is still expressed in the same physical forms.

But if some of us shrink a little from the spirit of imperialism and from all its works we can yield our full homage to the spirit of home. For the home is incontestably and simply the greatest thing in civilization—in all civilization, at all stages of evolution. Now the essential character of the physical home is that it is a spot won away from nature and measurably protected from the elements and

from the encroachments of aliens. There is a house built in geometrical forms; to the door there runs a straight path; in the parcel of cultivated soil there are straight rows of plants for use or beauty. Thus the home develops inevitably along geometrical, formalistic lines. The first gardens are always formal gardens.

Other elements of human culture, more highly refined, more lately developed, may also seek expression in garden forms. The spirit of poetry, with its love of sensuous beauty, its rhythms and cadences, its tropes and metaphors, its romantic and imaginative impulses, is always striving for objective realization. This spirit is only partly expressed in written verse; another portion may be objectified in gardens.

The thoughtful reader at this point may properly think of the affinity of poetry for pure nature, and if he is also a technical landscape architect he may be inclined to say that some of the best naturalistic landscape architecture has an indubitably poetic spirit. It is always a mistake to define too closely or to quibble about terms, and most especially so in a field like this. When we are trying to discuss matters of spirit words are mani-

festly inadequate. But it is at least plain that the symmetrical forms of poetry correspond most closely with the symmetrical figures of formal gardening; and it would seem a fair inference that those feelings which would come to their most natural verbal expression in verse would find their best physical expression in the terms of the formal garden.

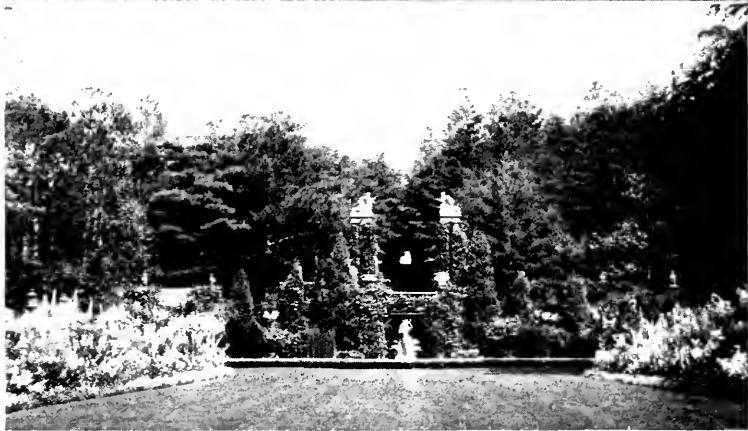
The spirit of music, also, differing somewhat from the spirit of poetry, may find its way into gardening. In music we have pure feeling embodied in another medium. It is practically always easy to specify the feeling expressed in any ordinary musical work, be it song or symphony. One piece of music gives us the feeling of reverie, another of mourning, another the feeling of smiling joy, the next one a thrill of military ardor, while yet another may communicate to us a mood of religious solemnity. This stir to our feelings is what we most clearly get from music, especially if we are not too sophisticated; which is only another way of saying that the spirit of the music speaks directly to us.

Now it is a curious and suggestive fact that a garden or a landscape reaches the human heart in precisely the same terms. One land-

scape is sunny and cheerful, another is somber and depressing. One garden is prim and ceremonious, another is (alas!) slovenly and undignified.

The facility with which music may be translated into the language of gardens is rather remarkable. For years I have made it a practice to ask my students in landscape architecture to do exactly this. We set the phonograph going upon some musical work—something good and not too abstruse—and then the pupils are required to paraphrase the musical work with a garden program. In a notable percentage of cases the experiment succeeds.

Thus it would be possible by further analysis to isolate, more or less clearly, other elements in the spirit of human civilization—the spirit of man in his command over nature,—and in every case to find for that specific thought a just statement in the physical materials of landscape architecture. Enough has been said, however, to make it clear, as much as such things can ever be made clear, that the spirit of the formal garden is quite different from the spirit of the natural landscape and that the two may be broadly contrasted as the spirit of man's conquest over



BALUSTRADE AND STEPS
TERMINAL FEATURE ON MAIN AXIS



BUNGALOW COURT IN HOLLYWOOD, CALIF.
ONE SECTION OF DOMESTIC GARDEN—Page 50

nature versus man's love for nature unconquered and undefiled.

FORMAL GARDEN MOTIVES

In nearly every form of art, composition proceeds by building upon motives. This is more obviously true in the decorative than in the representative arts. A motive has been defined as a physical unit which is repeated.* In formal gardening this repetition is usually very easy to see. To make a formal avenue of trees the tree unit is repeated at regular distances, and the full row on one side is repeated in the symmetrical row on the opposite side of the axis. In a hexagonal garden the flower beds of one segment should be repeated in the other fine segments.

This repetend or motive corresponds to the verse form in poetry, and to the motive or theme in music. It may be repeated at regular intervals along a line, or merely given a second time in bilateral symmetry upon a central axis. It hardly requires to be pointed out that the wise selection of such motives and

* See Waugh, "The Natural Style in Landscape Gardening," p. 63, where the idea of the landscape motive is more fully discussed.



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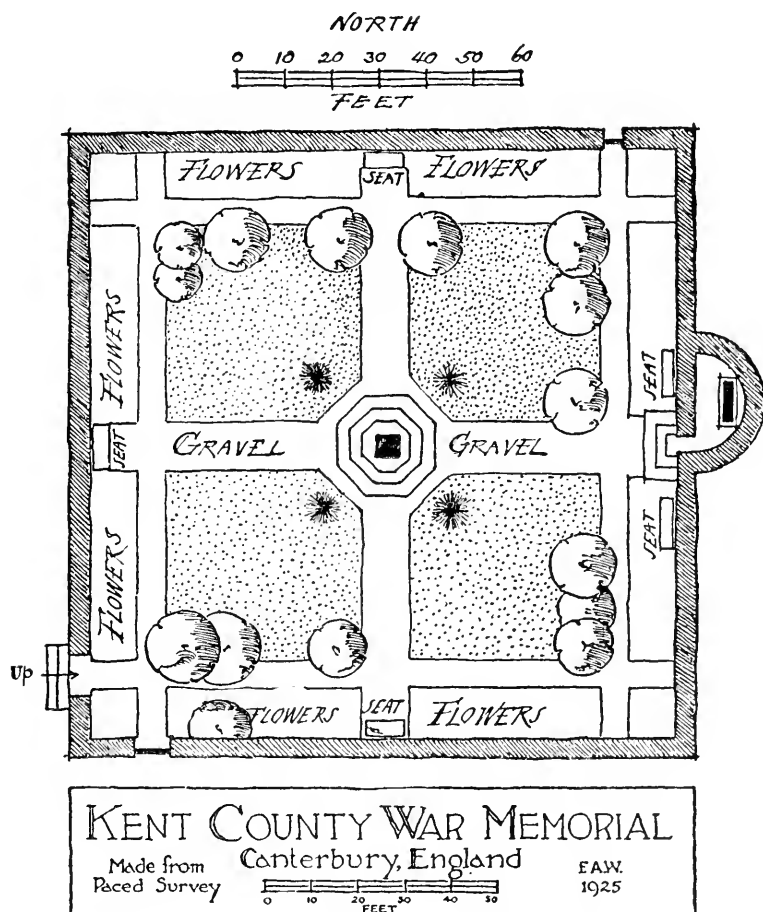
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their clever balancing, spacing and repetition, constitute a large part of the problem in formal garden design. Motives may be too large for the garden, or too small; they may be crowded or too widely separated. To have them just right is the stroke of genius. Or rather is it the fruit of good taste.

In the illustration offered above the single tree constitutes the motive for the formal avenue. In a garden of flower beds the individual flower bed may be regarded as the unit. Architectural motives are easy to find. In the famous and somewhat ridiculous, Sieges Allee carried out by that august landscape architect the ex-Kaiser Wilhelm, the equally spaced units are of marble statuary. These are the motive. One might easily imagine a garden in which masses of a certain color should be repeated at regular intervals thus giving a color motive.

In a certain park in London is a small enclosed formal space known as the Shakespeare garden. The idea in this composition was to collect within one small area all the trees, shrubs and flowers named in the works of Shakespeare. Here we have a literary motive applied to gardening, and the result

of repeating a literary idea is properly a formal garden.



In Canterbury, England, has recently been built a most dignified and admirable formal garden known as the Kent County War Me-

morial. Here a very definite feeling (spirit) has been objectified in the terms of formal landscape architecture, the memorial cross taking its commanding position at the center and the plan-figures being repeated in the four quadrants of the square.

This discussion may be summarized by saying that good formal gardening seems to demand the following steps:

1. We must first be clear as to the spirit to be expressed—the feeling or idea which the formal garden is to embody.
2. We should then choose a suitable motive.
3. We should then repeat this motive according to some suitable pattern.

The methods by which these patterns are worked out has already been outlined in preceding chapters.

VI

TREATMENT OF THE LAND



ONE of the most fundamental differences (in a double sense) between the so-called "natural style" and the equally miscalled "formal style" in gardening lies in the management of topography. In shaping the surfaces of the land the two systems are utterly diverse. This fact has not always been recognized. Gardens of both sorts have been made which did not conform to topography; and no deeper structural defect than this can be imagined.

Generally speaking we may say that the formal style is built upon plane areas. There may be several planes in the same garden, lying at different levels and having different exposures, but all the surfaces are nevertheless essentially smooth and unwarped. The natural style, on the other hand, is characterized by land which flows in curves. The surfaces are warped. There are no planes, or if there are they are broken or disguised. This is not a rule subject to no exceptions, but merely a general principle. However, the sweetly flow-

ing graceful modulations of good topography present one of the most cogent beauties of the natural style and constitute an element of its essential character.

One might be tempted, in view of the foregoing statements, to jump to the conclusion that the formal style belongs especially to flat countries. Historically the opposite would seem more probable, since the formal style has undoubtedly achieved its most characteristic successes on very rough land, notably in the hills of Italy, and even in the mountains.

We will return to this matter very soon; but parenthetically it may be suggested that the formal modes of design have not yet been given a fair trial in flat countries. The great plains regions of America, for example, are clearly characterized by their wide flat areas, their level horizon lines. Now when one takes a limited area of Kansas or South Dakota and tries to make it into a city park or a homestead he seems to be usually misled into methods of treatment which sacrifice the breadth and dignity of his native plains, when indeed they do not boldly deny that character. Would it not be wiser, at least in many cases, to adopt some strong and simple formal design under

which the beauty of the plane could be exhibited—possibly enhanced?

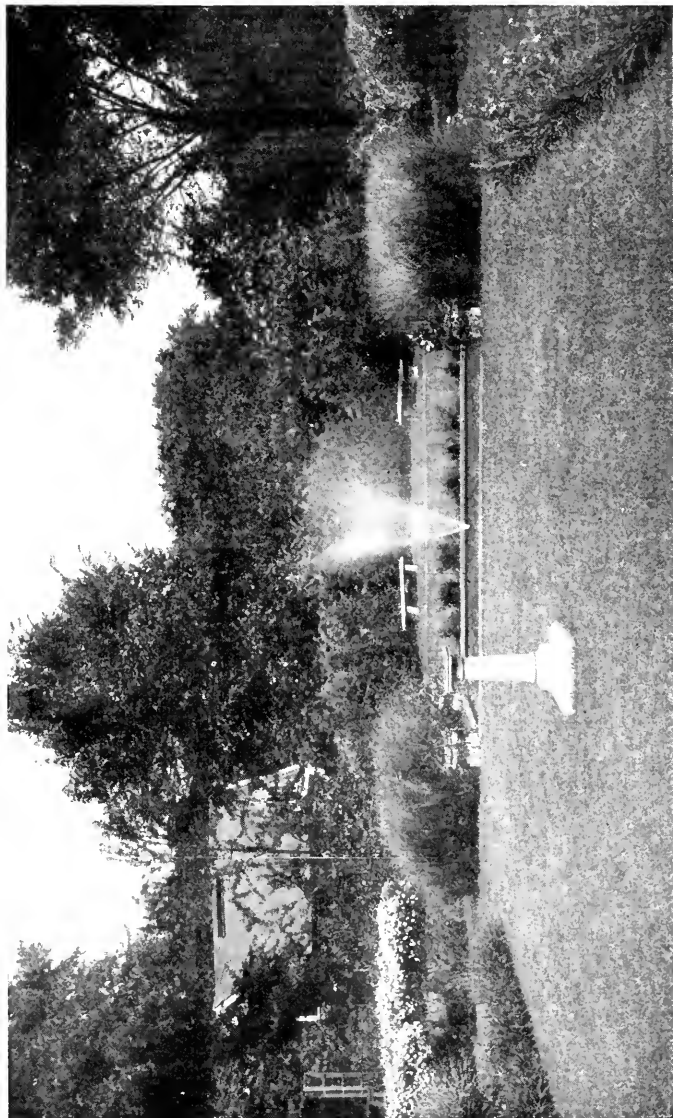
Going back now to the historical fact that formal gardens have been frequently and most acceptably built on rough topography, we have to note that the areas under treatment were always reduced to planes by grading and terracing. The practical result is to break up any considerable tract into quite small areas. These areas are at different levels and are separated from one another, not alone by the difference of level, but by walls, hedges, balustrades and other types of construction.

When all this has been done we have an estate subdivided into compartments much as proposed in the development of a "domestic style" (see page 41). In this domestic style the subdivision is recommended for purposes of practical convenience; but if the same end is achieved through necessities imposed by topography there can be no objection, seeing both necessities reach the same result. Indeed we have here discovered one of the reasons why this "domestic" method of design is so satisfactory in actual practice, that is because it meets a number of fundamental requirements.

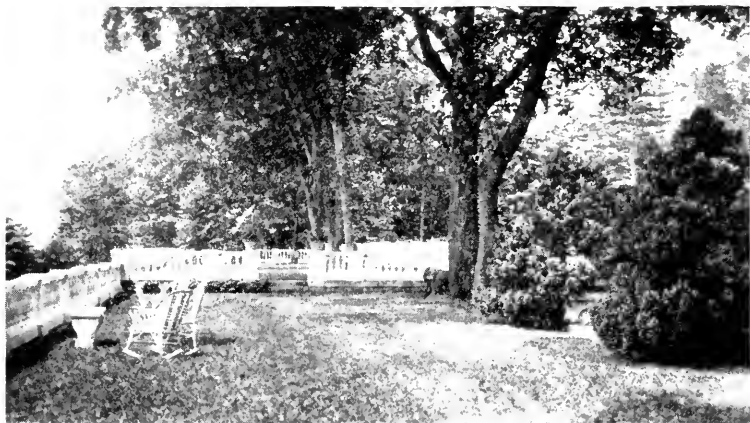
Still another advantage is gained in this work of subdivision in that the resulting small garden areas are more intimate. Instead of one large park wherein breadth is purchased at the expense of privacy, we have several little gardens, cosy, snug and homelike. Of course the large park has its beauties and its uses, but so does the small personal garden. A very fair comparison may be made with the treatment of spaces within the house. We demand that the interior of the home be subdivided into several comparatively small rooms. We like snug and cozy rooms much better than large and stately apartments. They are more homelike, livable and lovable; and they are also very much cheaper to build and to keep.

Either method must be adopted on reason and with care. It must here be especially understood that merely to cut up a large piece of land into several fussy little patches does not make a formal garden nor any work of art. Subdivision is pleasing only when logical—only when it works out naturally from antecedent conditions.

Development of topography as here suggested seems to be little understood in Amer-



LEVEL PANEL. Mr. Jens Jensen, Landscape Architect



A BALUSTRADED TERRACE
SMOOTH GRASS PANEL WITH FLOWER BORDERS

ica. Probably it is the matter most to be studied in making formal gardening a part of our national practice. There seems to be as much difficulty and awkwardness in passing from one level to another as a boy experiences in passing in or out of the room. Yet successes depends absolutely on the way in which these transitions are made.

Changes of level are usually made by way of either terraces or retaining walls. One may find both methods employed along any residence street where the city engineer has cut the roadway down considerably below the natural grade. Here the houses perch above the street; and their front lawns are held up by concrete or masonry walls, or there are beveled terraces sloping down. It is always a question which looks worse. For they are seldom designed with any taste. The house looks as though it were plumped down upon an unsuitable site. It never seems to grow out of the ground. Instead of giving one the feeling that it could not be removed it cries to heaven for relief.

Yet it ought to be possible in just such circumstances to design the whole project—house, lawn, steps, retaining wall and side-

walk—so as to give pleasing proportions and a sense of integral connection. The front yard would belong to the house; the terrace or wall would separate these naturally and usefully from the street, while the steps would conveniently connect the front door with the public sidewalk. It is a perfectly possible solution for a very practical problem—a problem moreover which is repeated ten thousand times in all parts of America.

Successful solution of this type of problem seems to rest usually on the following fairly simple conditions: (1) The front lawn should be all in one area. (2) It should be practically level. (3) The house should have a moderately low foundation. (4) The house should further be tied to the lawn by low foundation plantings. (5) Trees should be omitted from the front yard. (6) The change of level should usually be made by a wall of concrete or well-built stone. (7) This wall should constitute a clear separation between street and front lawn. For this purpose it may be carried slightly above the lawn level. In cases where a high wall is required, the lawn being six feet or more above the sidewalk, the wall should be surmounted by a fence or balustrade. Even

above lower walls a fence or a hedge will assist materially in making the transition. It seems to be quite desirable in all such cases practically to shut off the view of one level from the other. (8) The steps leading up from the sidewalk must be well-proportioned and interesting. If the line from the front door to the foot of these steps is not straight, but is broken once or twice at right angles, the result is apt to be improved.

Within the grounds changes of level, properly and naturally associated with convenient subdivision, will nearly always make the garden areas more intimate and interesting. Formal terraces, i.e., slopes of mowed grass beveled on straight lines, may be used when the changes of level are between two and four feet; for less or more they are in very doubtful taste and are difficult to maintain. Retaining walls are nearly always more agreeable. Here, within the garden areas, rough stone, or dry walls, are often agreeable. At times these may be planted with a great variety of interesting plants and featured strongly in the picture. This opportunity to grow plants in walls, on top of walls, and along the foot of walls is so fascinating that eager gardeners can seldom

resist it. The libraries will show many books devoted to wall gardening.*

Just here it is no part of our plan to go into the horticulture of wall gardening, nor even to argue for the delights of such experiments, but merely to point out the large acceptability of such walls in the subdivision of the grounds.

Where walls are built of stone masonry, of brick, of cement, of stucco or in combinations of these materials, it is usually good practice to soften them by tasteful plantings. There may be hollyhocks, ferns, tritomas, asters or other good species (there are hundreds to choose from) along the foot of the wall; there may be vines, such as ivy, climbing fig or euonymus on the surface of the wall; there may even be shrubs, as lilacs, against a high wall; and lastly though not leastly there may be trees so placed as to cast their softening shadows on the too-sunny and too-conspicuous brick or cement surfaces.

The ideal should be to soften and break up the wall surface—not to cover it entirely. Not infrequently one sees a good wall buried in verdure. Such a wall might as well be a hedge.

*See especially Jekyll, *Wall and Water Gardens*, London (3rd edition without date).



BIRD FOUNTAIN IN A SMALL DOMESTIC GARDEN



GRASS PANEL GIVING BREADTH IN A SMALL GARDEN

It requires good taste to feel just when a wall of this sort has covering enough.

The walls here discussed are, of course, retaining walls. But it is often desirable to carry such a wall above the level of the upper earth surface, above which it becomes, not a retaining wall, but a free standing wall. In short the two types of construction may be combined advantageously in certain circumstances. Or the retaining wall may be surmounted by a balustrade, a fence or a hedge. Any of these combinations is perfectly practicable, and if well designed is apt to be both useful and pleasing.

As is elsewhere pointed out (see page 109) this scheme of design involves another essential factor, viz. connection. There must be provision for circulation: this is a practical requirement. But there must also be a positive connection between the separate garden units: this is an esthetic requirement.

Connection is made by means of walks. To this general rule there are few exceptions. The walks may be mere strips of grass with passageway indicated by a gateway, by a rose arch or by posts; or they may be the most elaborate constructions of brick and tile.

They must, of course, be in scale and harmony with other features of the areas connected. Brick and tile walks should be used with brick buildings and brick division walls; concrete may be used in the neighborhood of masonry or stucco, though concrete walks within a family garden are seldom agreeable. Grass walks, gravel walks or stepping stones may be used where no architectural structures are present to suggest the harder materials.

Another feature of this problem lies in the need of marking in suitable manner the points at which these lines of circulation (paths) cut through the boundaries of individual garden areas. These points are of considerable significance in the structural design. They are in fact the points, though not always the only ones, at which the structural lines are supported. They appear as fixed points in a system otherwise capable of easy flux.

These points of intersection are therefore usually and naturally marked by some special physical structure. Where the path passes through a wall there is a door; where it goes through a fence there is a gate; where it intersects a hedge there should be posts or an arch or other figures; where the walk passes

from one compartment to another on a different level there will of course be steps, and these should be given some dignified mass-effect. Each one of these intersections in fact yields a special opportunity for the use of some figure which may be made, indeed must be made, beautiful.

In many cases, of course, these gates or steps or other figures become the termini of axial lines. In short they are integral features in the primary organization of the garden design.

Finally it may not seem superfluous to return to the beginning of our argument long enough to make an earnest plea for a more general recognition of the beauty of land surfaces, the lovely qualities of topography; for a deeper understanding of what topography means in order that out of the land itself a more sympathetic, and therefore more artistic, landscape architecture may be developed.

VII

ENCLOSURE



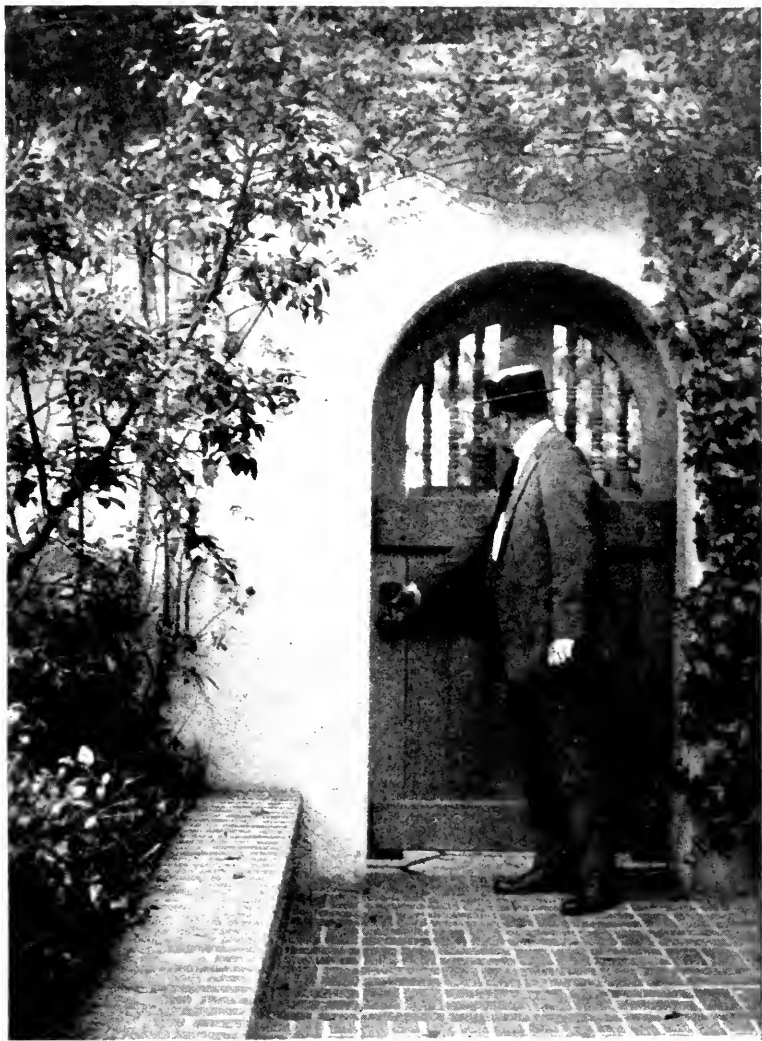
GOOD design requires that the formal garden be wholly enclosed. There may possibly be exceptions, but they are so few as hardly to supply the proverbial proof of the rule.

The demand for enclosure thus set up on principle is strongly enforced by practical considerations. Even the horticultural requirements are better met in the enclosed garden where protection from wind and partial protection from sun make it possible to grow many plants which will not thrive with more exposure. But the most cogent reason of all, and the one which should always be given the most serious consideration, is that the garden should have privacy. The small formal garden should be closely tied to the dwelling house. It should be an integral part of the home. It should be intimate and private. If it can be just as completely secluded as the sittingroom or library within the house it will be all the better as a garden.

This necessity for privacy calls for the ut-

most emphasis because it is not felt by the average American. Rather has an opposite presumption grown up. When our grandfathers began to take down the picket fences along the street fronts and to demolish hedges on division lines their work was generally approved. The front yards which were thus democratically opened to the public view are still worthy of our admiration. But gardening should not all be in the front yard, though millions of American voters think so; and a private formal garden at the rear of the dwelling-house and connected with the living rooms is quite a different matter from a patch of lawn lying between the front door and the sidewalk. This distinction once made clear we shall be in a better position to understand what a real family garden or a genuine social garden is.

There can be no question, once the matter is fully considered, as to the desirability of enclosure for formal gardens. The only practical question is how shall the enclosure be effected? The most practicable materials are buildings, walls, trellises, hedges and other plantings. In many cases, perhaps in a majority, it happens that the formal garden is bounded on one side by a building—by the



GARDEN WALL WITH GATE



WALL WITH BORDERING PERGOLA. Olmsted Bros., Landscape Architects.

house, or even by a garage. The house should become a part of the garden; the garage may be trellised and covered with climbing vines; in any case after the abutting building has been properly assimilated it becomes a part of the garden enclosure. Generally a perfectly agreeable part.

THE GARDEN WALL

The vague American feeling against the means of privacy for the garden runs to positive antipathy as soon as mention is made of masonry walls. One might think that every citizen was haunted by unhappy memories of penitentiary enclosures; for in fact when the popular objection becomes vocal it is offered in these set terms: "Those stone walls make the place look like a penitentiary!"

Yet the garden should not look like a jail-yard, even if walled, and the owner should not feel like a convict. As a matter of course the garden wall will not be left bare but will be clothed in verdure. Against its neutral background masses of bright flowers will show their colors. In parts there will be trained fruit trees. At other points there will be niches with vases, fountains, windows. A wall thus

festooned, colored, softened, broken and absorbed into the garden can hardly give anybody the shivers, no matter how bad his conscience.

Instances must be very rare, moreover, in which the most extreme lover of walls could find excuse to extend them to the complete enclosure of his garden on all sides. Normally the need for a wall is found at one side of the garden only, or at most on two sides. A section or two of masonry wall between buildings and plantings can not be so bad. In fact the wall itself often becomes a mellow and lovely feature of the garden. The English gardens, doubtless the most likable in the world, make large use of walls solidly built of brick or stone.

The garden designer, amateur or professional, who would therefore introduce masonry walls into American gardens has every good argument on his side. He need not forget that there is a native prejudice against his walls, and if he is wise he will not gratuitously offend this prejudice. It is his problem merely to make his garden so snug, cozy and homelike that every skeptic heart will melt to the warmth of its hospitality.

Of course a garden wall needs to be designed with taste. It can be made coarse and repulsive, or it can be quiet, domestic, refined. Height, materials, textures, color, breaks and treatment of details all demand careful study.

Used in connection with a house the garden wall may best be of the same material. If the house is of gray limestone, then the wall should come from the same quarry. If the house is red brick the same brick should be used for the walls. With a stucco house nothing harmonizes better than stucco walls. With a wooden house the problem is a bit more difficult, though good wooden enclosures may be built, and indeed are very widely used for garden walls in England.

The practical construction of stone, brick or stucco walls is well understood. There are workmen available in nearly every community to do the work when once the wall is fully designed. The use of wood for such purposes is less well worked out, but the possibilities are so great that they should be given careful study.

A wall, entirely satisfactory for many positions, may be made of wooden strips one inch thick, three or four inches wide and six or

eight feet long. These are placed edge to edge with room for expansion and are held top and bottom by suitable horizontal runners, which in turn are fastened to strong posts. If strict privacy is required the cracks must be battened. This wall may be painted, though creosote stains generally give a softer and more agreeable tone. A tight board fence of horizontal members is not difficult to design or construct. Fences made of pieces sawed and left with the bark unstripped are sometimes built, but are rather too rustic for formal gardens. A favorite garden wall in England is made of rived oak strips about one-half inch thick, three inches wide and of any convenient length, usually some six feet. These are set vertically, overlapping at the edges, like courses of shingles, tops and bottoms being held between horizontal strips. These are nearly always stained brown. They blend most sweetly with foliage and flowers.

TRELLISES

Where walls of stucco, stone or brick seem too obdurate, inappropriate or too expensive, trellises may serve the case. The common American antipathy toward walls does not ex-

tend to trellises. There has been considerable experimentation, especially of late, in their design and manufacture. Anyone who decides to enclose his garden, wholly or partly, by trellises, at least stands a fair chance of getting good design and sound construction.

A trellis-work enclosure may be made more or less impervious to prying eyes. Perhaps the tighter it is the better, at least when used on boundary lines or street fronts. The popular lattice of "diamond" openings may not represent the zenith of good design, but it is passable when well done.

A combination of trellis and pergola sometimes fits conveniently along one boundary of the garden. The possibility of such a solution of the enclosure problem should not be overlooked by the designer.

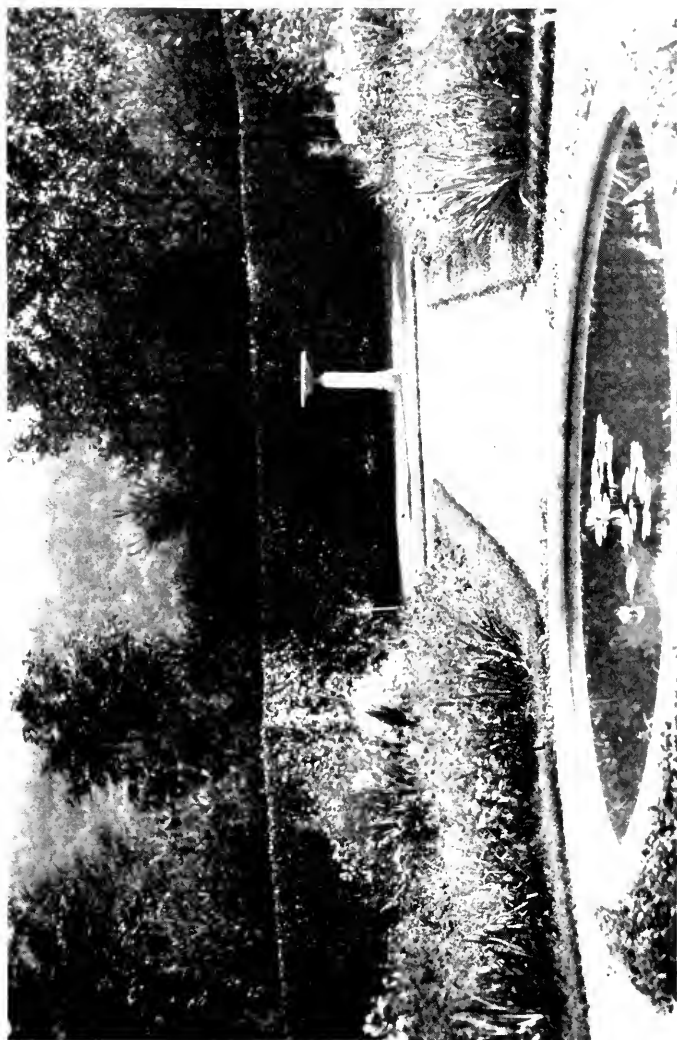
A highly prevalent custom favors white paint for every trellis. But white paint makes the structure very conspicuous and if the design leaves something to be desired the paint advertises the defect still further. Painting in soft greens or neutral grays is advisable in a good many instances, and the use of creosote stains has much to recommend it.

HEDGES

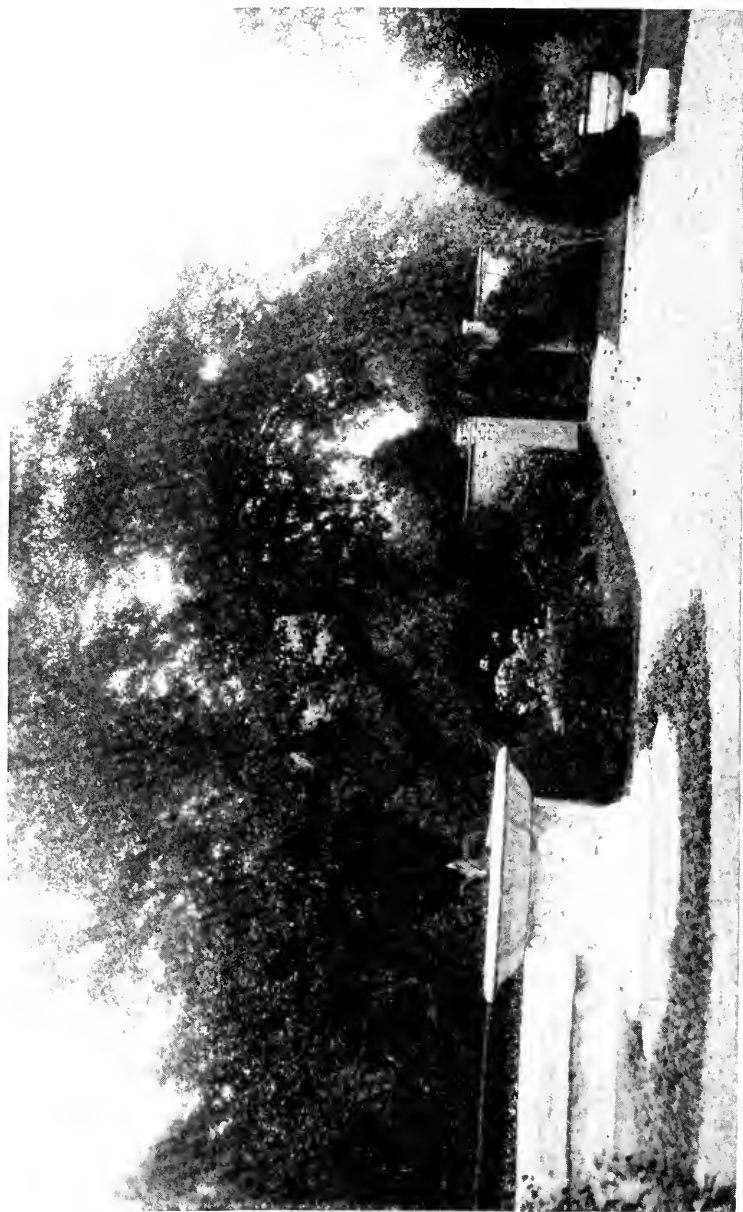
After all a hedge is one of the most legitimate expedients known to the garden maker's repertoire. It grows out of the ground. Its green foliage makes a beautiful background for flowers, furniture or statuary. It has a poetry all its own. With a long list of plants from which to select, the designer may secure almost any effect he desires. Above all a good hedge gives the privacy so much required in the garden, yet does it without offense. There may be some feeling of resentment against a brick wall, but the stranger who would deny the householder his garden hedge must be a socialist beyond the lunatic fringe.

So let us have hedges. Let us have more of them, and much better ones. Let the species be judiciously selected; let the ground be well prepared, let the plants be closely set, and above all let the pruning be done betimes and in a workmanlike way.

Hedges are of all sizes, from the four inches high edging to the screen of poplars perhaps 80 feet tall. They may be sheared to a smooth surface and to straight lines, or they may be allowed to grow freely and naturally. They may be made of deciduous shrubs, of broad-

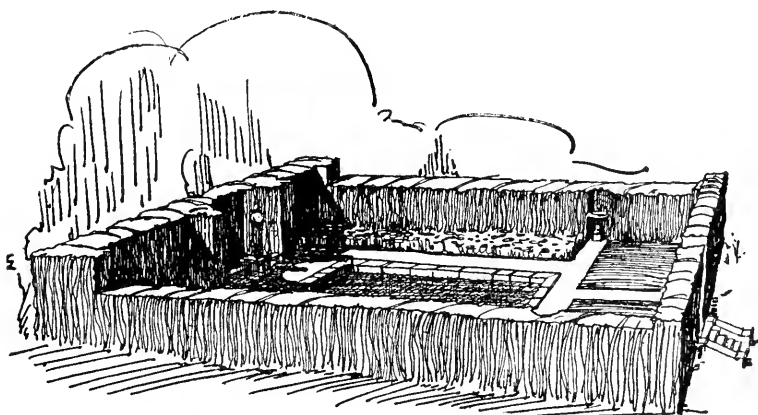


GARDEN ENCLOSED BY HEDGE; Design by Mr. Daniel Chester French



GARDEN OF MR. DANIEL CHESTER FRENCH ENCLOSED BY BRICK WALL AND PLANTINGS

leaved evergreens, of coniferous evergreens or of deciduous trees.



Simple Formal Garden with Well-Placed Walks and Good Enclosure
Design and Drawing by Sidney B. Waugh

For the average formal garden a sheared hedge of moderate height, say six to ten feet, is generally best. This may be either of evergreen or deciduous material. Speaking broadly, and with room for special circumstances and individual tastes, the best evergreen hedges are to be had from hemlock or arbor vitae, with spruce not far behind. The best broad-leaved evergreens are certainly the box and the myrtle where they can be grown. The best of the deciduous shrubs are the privets, the barberries, the buckthorns, the hawthorns and the Japanese quince. Yet let any-

one who has a preference founded on practical experience exercise his own choice, inside or outside this list.

Close planting is quite desirable if one is to have a good solid clean sheared hedge. It is even worth while to set the plants in double rows. The great problem with most hedges is to prevent their becoming ragged at the bottoms after a few years. This is to be prevented by close planting followed by early, frequent and regular pruning.

Pruning should begin the first year; and as soon as growth is established should be a never-failing annual rite. Indeed many hedges are best managed under a system of two or even three prunings each year. With such free-growing species as privet and buckthorn it is best to prune early in spring, before growth starts, preferably in February, and again late in June, after the first strong growth has ceased.

It may be well to remember that pruning calls for some skill. It was not for a joke that the ancient gardener was called the topiarius, or shearer of trees. Let no one despise the art, but seek to do each year a better and cleaner job of hedge-making.

LIST OF PLANTS

Following is a brief list of the plants most commonly used in hedge making. The truth is that hundreds of species can be used if some skill and patience are applied to their training. The catalog of available plants is by no means so restricted as is often supposed.

Acanthopanax pentaphyllum is the thorny name of a thorny hardy vigorous shrub which is well known and deservedly popular and which serves well for hedges. It makes a good stiff enclosure when unpruned, but it also makes a good hedge under the shears. The foliage is bright, rich and clean.

Arbor vitae is unquestionably one of the great American favorites in hedge making, and quite deservedly so. It is hardy over a wide range of country, will stand exposure, neglect and poor soil, and is easily pruned to any size or form. It is probably the most dependable species for making solid screens and hedges which really enclose a garden.

Barberry. The Japanese barberry enjoys a popularity almost reprehensible. Doubtless it is used too much. Its clean and ready growth, its ability to stand shade and adversity, its good foliage and pretty fruit, make a strong

combination of good qualities. It requires little pruning. The dwarf box barberry makes a nice little hedge or border plant. The larger species, European and American, are also excellent and also withstand shade. They are looser in habit of growth and require more pruning, to which however they submit quite amiably. Several other species are exceedingly promising though less familiar to garden makers.

Beech. This tree will submit to much pruning and training. In Europe it is not infrequently treated as a hedge plant. However it is rather too large and coarse for garden hedges.

Box. The old-fashioned box is an ideal hedge plant long associated with formal gardens. It will submit gracefully to any amount of shearing, yet it makes a beautiful growth when quite unpruned. It is hardy along the eastern seacoast to Cape Cod, but not reliable northward. Where it can be grown it should always have early consideration.

Buckthorn was formerly a prime favorite for hedges in the seaboard states. There is no reason why it should not still be popular. In fact it is one of the best plants for sheared

hedges, hardly inferior to that universal favorite, the privet. It should be more frequently used, especially where a high-class sheared hedge is desired.

Deutzia. The smaller deutzias, viz. *D. gracilis* and *D. lemoinei* make pretty little hedges three to four feet high, very attractive for their pure white blossoms, but scarcely tall enough for making real enclosures nor hardly submissive enough to the shears ever to shine in a topiary competition.

Escallonia montevidensis is a strong-growing erect bush with good evergreen foliage and fragrant flowers now considerably grown in California. This has the qualities which make an excellent screen. I have not myself seen it sheared into a formal hedge, but it ought to work out well under such management.

Eugenia. This broad-leaved evergreen makes good hedges. In California *E. myrtifolia* is considerably used. It makes a good substantial growth up to 10-12 feet and stands shearing well.

Euonymus. This genus includes several excellent species for hedge making, both deciduous and evergreen. The common Strawberry

Bush, *E. americanus*, grows to a height of 8-10 feet and can be sheared to good effect. The foliage is good. The Winged Euonymus, *E. alatus*, the Wahoo, *E. atropurpureus*, and the European Burning Bush, *E. europeans*, are also available. The two evergreen sorts best known are *Euonymus radicans* and the broad-leaved variety *E. radicans vegetus*. These are excellent for bed borders but not strong enough in most gardens for boundary-line hedges.

Firethorn (*Pyracantha*) makes a thick, impenetrable hedge 5-8 feet high. It is thorny and firm and should be used only where positive enclosure is desired. With prompt and regular shearing it gives excellent results, but is not safely hardy much north of Washington.

Hawthorn. This is the traditional hedge of England, fitting the pages of all old poetry. The English hawthorn does fairly well as a hedge in the northeastern states and in the northwest. Several native species are well fitted for similar use. They all require regular and frequent pruning.

Hemlock. The richest and most beautiful evergreen hedges in the world may be made of hemlock. The Canada hemlock is the

favorite, but the Carolina species is quite as good. The cost of good nursery stock is a considerable item in either case. The hemlock, like any evergreen, requires careful annual pruning, preferably the last week in June, to give the best results.

Hornbeam makes a fairly good plant for large strong hedges if properly trained and pruned from the beginning.

Hydrangea. These ever popular shrubs do well for loose hedges, having good foliage and showy flowers. They do not serve so well for sheared hedges, however. The two favorites are *H. paniculata grandiflora* and *H. arborescens*, the former being the more popular but the latter generally better.

Japanese quince makes a delightful hedge up to five feet or even six feet on good soil. It stands pruning well. It was formerly quite popular in America but proved highly susceptible to the attacks of San Jose scale. With the recession of the scale the Japanese quince is coming back.

Lilacs. For large, loose, unsheared hedges or screens the lilacs serve very well. Any of the varieties will do. Moreover the lilac will admit a certain amount of pruning, even of

formal shearing. If the pruning is done immediately after the flowering season very fair growth may be expected and a moderate crop of flowers for the next year. However the lilacs, lovely as they are for garden uses, must be regarded as more valuable for unsheared screens than for formal hedges.

Maple. Any of the maples may be used for some sort of hedge. Any of them will submit to a certain amount of pruning. Comparatively dwarf kinds like *Acer ginnala* and *A. campestre* (which is known as the hedge maple) may be sheared to quite strict hedges.

Myrtle. The true myrtle and the dwarf (Rosemary) myrtle are used in California freely as hedges—perhaps also in Florida and Louisiana. They are excellent broad-leaf evergreens, look something like box, and may be sheared in the same way. The true myrtle is best for small hedges—two to four feet high, while the Rosemary myrtle is suitable for small edgings.

Orange. The hardy orange, *Citrus trifoliata*, makes an excellent hedge and stands pruning well. It is rather a favorite in middle latitudes, from Washington south.

Osage orange. This plant was formerly

very widely used as a hedge plant in the middle states, seldom however for garden making. It is very thorny; but where such a hedge is desired it answers the purpose admirably. It is clean and hardy and will yield ready obedience to the shears.

Pea-shrub. The Siberian pea-tree, *Caragana arborescens*, and possibly other members of the genus may be successfully used in hedge making. The Siberian species has the advantage of being very hardy and on this account of being available over wide stretches of the north and northwest where only a few shrubs can be grown. It prunes well and makes a stiff, solid hedge.

Pines make good hedges, quite contrary to the common opinion. They submit to pruning when given from the start and regularly. The native white pine is most easily managed and gives the best results. The Scotch and Austrian pines, however, may be grown in the plains states where the white pine will not live. The value of the pines for hedge making should not be overlooked.

Prickly ash. Here is a hardy native shrub which has not received the attention it deserves. It is stiff and thorny, and where that

sort of a hedge is desired it will serve the purpose well. It grows five to seven feet high and can be sheared.

Privet. Quite possibly the privets would get more votes in the hedge popularity contest than any other group. They make ideal hedge plants. They are easily sheared to any size. Practically every member of the genus is thus used. The California privet, being nearly evergreen in the southern states, is a prime favorite, but unfortunately is not reliably hardy northward. The common privet, *Ligustrum vulgare*, does well but is being widely replaced in norther states by the better Amur privet. The hybrid Ibolium and the Pygmy privet make good edgings, but are rather small for enclosures. All the privets, to make good hedges, should be pruned regularly, preferably twice a year.

Roses. There are several ways of making a hedge of roses, depending to a large degree on the species. The ramblers may be run on a trellis very effectively, and not infrequently this scheme gives excellent results in making formal gardens. Loose unpruned hedges are easily grown from *Rugosa* varieties. F. J. Grootendorst, a hybrid is especially recom-

mended for that purpose. Low hedges, un-sheared, may be made from the dwarf ramb-
lers or from such species as *R. carolina*. All
roses are ingratiating with their flowers, but
they do not stand shearing well enough to
recommend them for formal hedges.

Spirea. Several of the hardy spireas make
fairly good hedges, the more so where strict
shearing is not desired. *S. thunbergi*, *S.*
japonica and *S. salicifolia* are perhaps best for
these uses.

VIII

WALKS AND PAVINGS



ARDEN walks serve two purposes. First, they are a practical means of getting about; second, they are the structural members which tie together the several, and otherwise largely separate, units. This unifying influence of the garden walk is to be seen even in poorly planned places. Indeed where a truly successful design has been achieved through the study of a competent artist, the satisfying feeling of integrity depends largely on a system of circulation, as the landscape architect calls it, which obviously binds each part to every other.

The location of the garden walks therefore becomes one of the first and most exacting problems of the garden designer. This is a matter to which both the amateur and the professional might well give greater care.

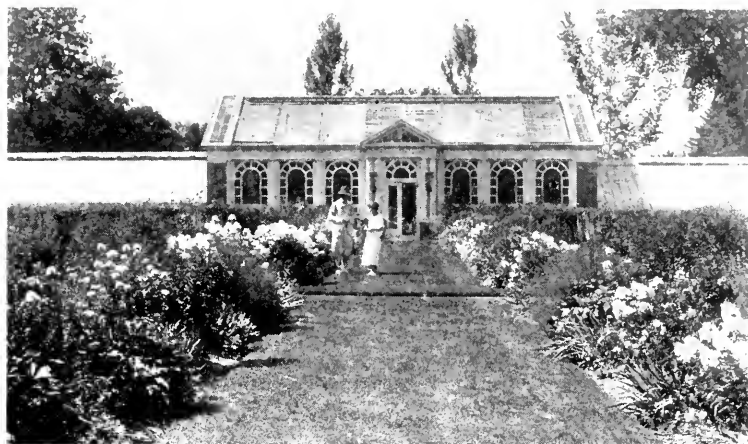
DESIGNING THE CIRCULATION

In the discussion of domestic garden design (page 47) the principle has been laid down that "the lines of circulation will serve to con-

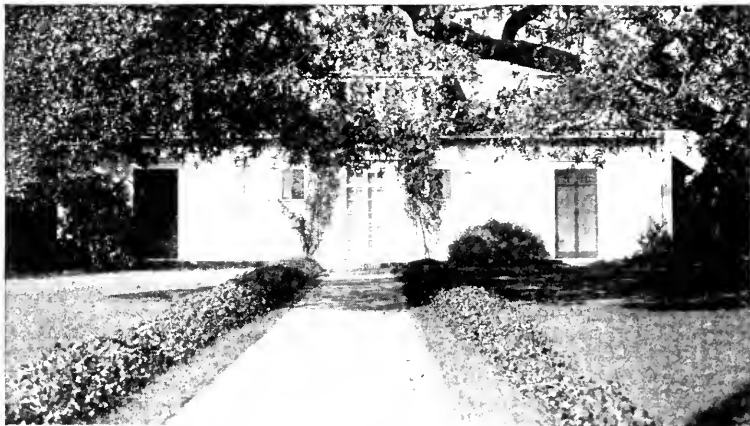
nect and unify the separate parts". If one of these parts be a rectangular formal garden this method begins to work out immediately, for the principal structural lines—viz. major axis and minor axes—are almost certain to become the main traffic walks. Where there are exits and entrances these will cut through the walls of the formal garden at the most emphatic structural points, that is at the termini of axes. Should the general lay-out include a radial garden its entrances and exits and its walks are hardly less conspicuously parts of the structural scheme. If there be a tract of natural woodland or other area treated in the "natural style", this, too, while having its walks designed on a quite different pattern, will make them to be nevertheless the principal structural lines.*

There thus remains no serious difficulty except to make the walks issuing from one garden area connect naturally with the walk entering the next one. This is not quite so easy, but with ingenuity and careful study it can usually be accomplished.

*This structural development of the circulation in informal gardening is fully explained in Waugh, "The Natural Style in Landscape Gardening," page 74 and following.



GRASS WALK, "BROOKSIDE." Mr. Ferruccio Vitale, Landscape Architect
BRICK WALK TO FRONT ENTRANCE



BRICK WALK WITH GRASS VERGE AND FLOWER BORDER
CEMENT MALL, FORSYTH SQUARE, SAVANNAH, GA.

Nothing more completely destroys all sense of good design in any garden than to find walks disconnected and disjointed or to see them wandering aimlessly about with nowhere to go and no method of getting there. And unfortunately examples of this bewilderment are easy to find, perhaps especially so in parks and gardens of alleged natural style.

MATERIALS FOR WALKS

Probably the pleasantest garden walk is over turf, pine needles or firm, dry soil. A clean, hard trail through the woods is superlatively agreeable both to the feet and to the eye. Here is another point among many where simplest things are best.

Turf walks in formal gardens, for example in rose gardens or between beds of old-fashioned flowers, are very appropriate, and turf walks properly made and maintained will withstand a remarkable amount of wear. To be well made they must of course be planted upon good soil, deeply dug, fully drained and well enriched. They must then be sowed with the most resistant grasses, such as the bents and the fescues, or, in limestone regions, with

bluegrass and white clover. They should be watered in times of drought, kept clear of moles and grubs, and mowed betimes. This is not a convenient place for a treatise on lawn making and maintenance, but fortunately full information on these matters is widely available.

Yet the maker of a formal garden, and more particularly of a house garden for constant use, sometimes feels compelled to use more durable materials. The simplest answer to this problem lies in placing stepping stones in the turf where steady traffic has begun to wear away the grass. Smooth split stones of soft neutral colors cleverly laid make a very pretty pattern in the garden and are by no odds unpleasant in use. Yet one does sometimes see quite unhappy stepping-stone walks—for example those made of rough, non-splitting stone, or those cast from cement. Some taste in this matter, as in all other garden decisions, is required.

Stepping stones should be set flush with the surface of the turf so that the lawn mower will pass over them without dulling. Some stones in some soils will not lie smoothly and quietly in their earthen beds, and for such

some firmer foundation of sand, gravel or concrete should be provided.

From laying stepping stones we pass quite naturally to the building of walks of random flat stones or slate. Such walks may be made distinctly beautiful as well as wholly practical, or they may be constructed so as to be neither beautiful nor practical. To please the eye the stones must be of different sizes and shapes and must match with many clever inexactitudes. The walk must be comparatively narrow—four feet wide is perhaps the maximum. It must be smooth. There should be some green showing here and there through the interstices, yet the walk must not be weedy nor overgrown with grass. Yet there are many beautiful diminutive garden plants suitable for growing upon these walks, and their culture affords a highly eligible opportunity for skillful gardening.

There should nearly always be a straight edging for this walk of flags. The edging is made preferably of the same kind of stone turned up edgewise, and this part of the construction is a bit ticklish. It is facilitated if the whole walk is given the foundation it ought to have, viz. gravel and drainage material

solidly rolled down to a depth of 18 inches or two feet.

BRICK WALKS

A properly made brick walk is one of the most pleasing, both as a decorative feature of certain formal gardens and as a practical footway. Clearly the brick walk gains in appropriateness when it is seen in close proximity to a brick house; and per contra it loses its charm when it disappears in the jungle out of sight of buildings. On garden terraces next the house, or used as front entrance walks, or built in formal gardens where architectural features are freely employed, the brick construction seems fitting and harmonious.

Yet a brick walk requires most careful handling. If it grows to be too wide, too bright in color or too flamboyant in design—if in short it obtrudes itself on public notice,—it has then passed the bounds of modesty and ought to be corrected. Brick of quiet tone should be chosen. Some paving brick are excellent, especially those of darker color and rough surface.

Brick may be laid in pattern, sometimes combined with areas of cement. Simple pat-

terns in quiet colors may be interesting and wholly pleasing; but the facility with which this pattern making leads to bizarre effects constitutes a serious danger.

Practically without exception should the brick walk be bordered with brick turned up on edge. This makes still more necessary the foundation which the brick walk ought to have on any terms. The foundation should be 18 inches to three feet deep, depending on soil conditions (deeper in a badly drained clay), and should be composed of gravel, shards, cinders or other drainage material heavily rolled into place. If the bricks are to be loosely laid, or if the walk is to bear extra heavy traffic, it will be well to lay them in a bed of rich concrete, which concrete rests upon the drainage material already specified.

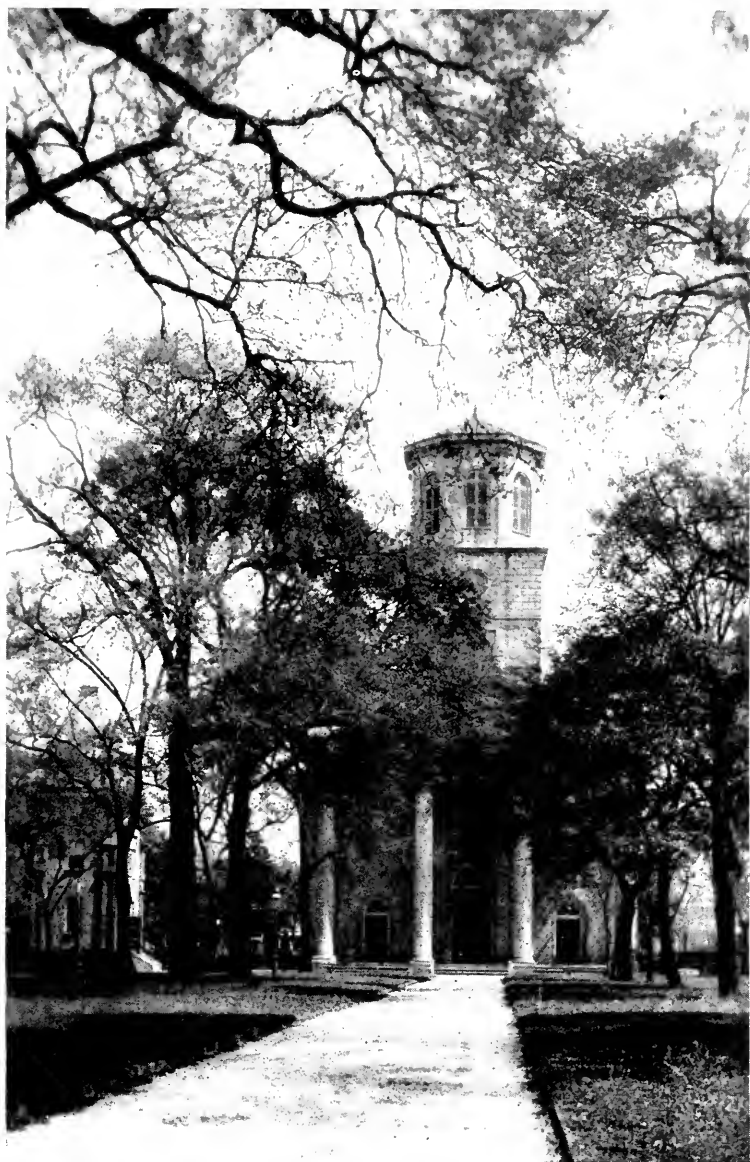
OTHER TYPES OF WALKS

The terrible vogue of modern cement leads to its use in many inappropriate connections. Perhaps it is more vulgar and unpleasing when used for garden walks than anywhere else in civilization. It is sufficiently hard and inhuman when used in cities and in front of public buildings. (I have seen more than one

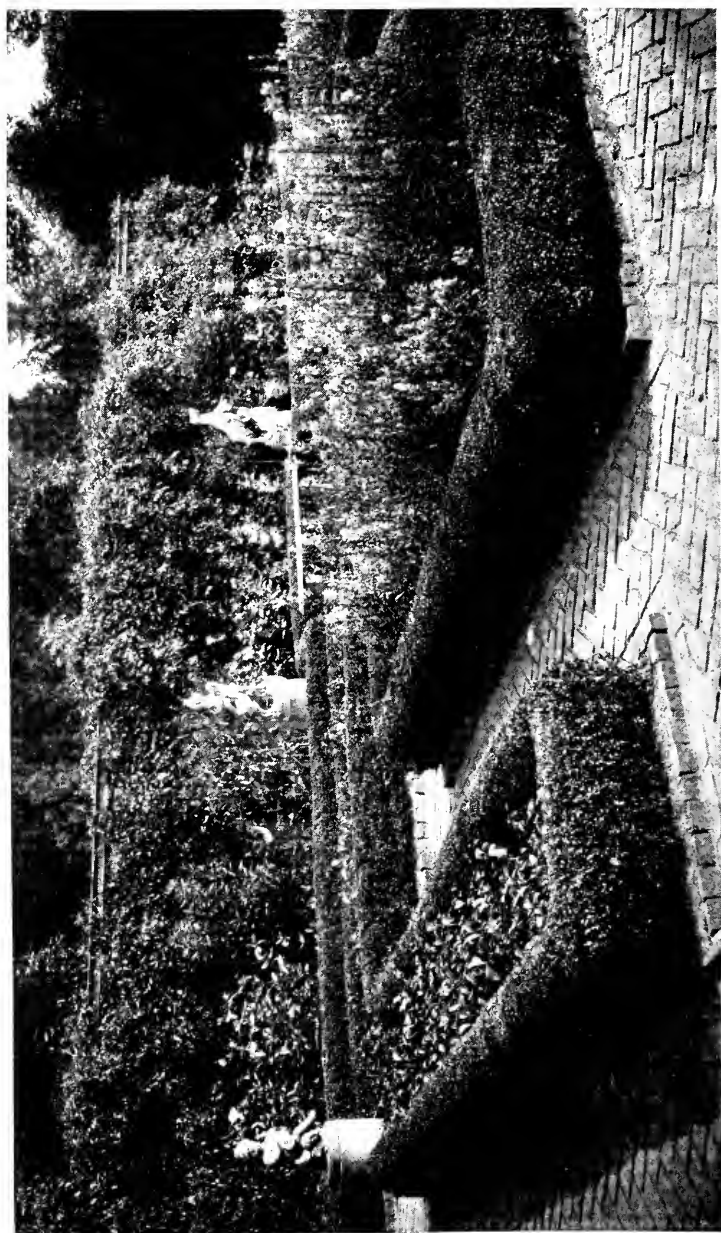
school-ground with the whole playyard laid down to concrete: Could anything better typify the hard uncultivated character of our education?) But when the cement walk crowds in amongst the pansies, the primroses and the four-o'clocks the limit of indecency has been reached. Let us therefore banish the cement walk forever from American home gardens.

Before this catalog is ended a word should be said however for the gravel walk. When improperly made it is ugly enough and not at all inviting to the feet. Yet when rightly constructed it is one of the best. It is one of the most durable under severe wear, may be pleasant to the pedestrian, and may also be distinctly alluring to the fastidious eye. One easily remembers that the world famous promenade Unter den Linden is paved with gravel of a peculiarly rich dull orange hue harmonizing softly with the green of grass and foliage.

A first problem is met in finding gravel of good color. Dull orange is perhaps the best. Soft greenish gray is quite agreeable. Then the gravel has to be sifted so as to place the coarse material underneath and the finer on the surface. Finally if the gravel does not



GOOD GRAVEL WALK, CHARLESTON, S. C.



BRICK WALKS AND EDGINGS WITH BOX BORDERS

carry its own binder a light dressing of limestone dust or even of clay should be added.

A border of bricks on edge is often acceptable with a gravel walk, though of course the colors of brick and gravel must harmonize. Edgings of dwarf box, euonymus, periwinkle, or similar materials are highly available with gravel walks.

PAVED AREAS

Besides the walks certain small paved areas are occasionally required, especially in formal gardens. These areas sometimes mark the intersection of walks, they may appear as margins to pools of water, they are practical and convenient as floors to summer houses or pergolas, while one of the most natural adaptations comes in making a small paved area where a table and seats are to be placed. These paved areas are practically always connected with the system of walks and will almost inevitably follow the same type of construction. If the walks are of irregular flags the paved piazzettas should be of the same; if the walks are of brick then a brick paving will almost necessarily be used for any such areas. Of course there will be some exceptions. There

are conditions, for example, where tile floors may be adopted for fine terraces, pergolas or garden pavilions, though tiles, especially fancy tiles, would rarely or never be chosen for garden walks.

These garden plazas, whatever their surface paving, should be built upon substantial foundations, meaning two feet deep of gravel and drainage well tamped down. The paving material may well be further fortified by bedding in cement or concrete.

The wise development of these conspicuous garden areas requires taste and a good sense of design. They offer a first rate test to the ambitious garden maker.

IX

SHELTER



AMERICAN gardens are sadly deficient in furniture and in shelter. These twin neglects spring from the same source, namely from the fact that our gardens have been designed to look at rather than to live in. The great domestic reform which must come, and which indeed is slowly coming, consists in turning from the former idea to the latter.

If one is to live in his garden there must be both furniture and shelter. Dismissing furniture to another chapter we may say at once that in our climate shelter is particularly desirable. When the sun shines it is hot, and when the wind blows it is chilly, and as no one prefers either to swelter in the sun or shiver in the wind, he forsakes the garden for the house: he turns from playing with his roses to playing bridge.

THE PORCH

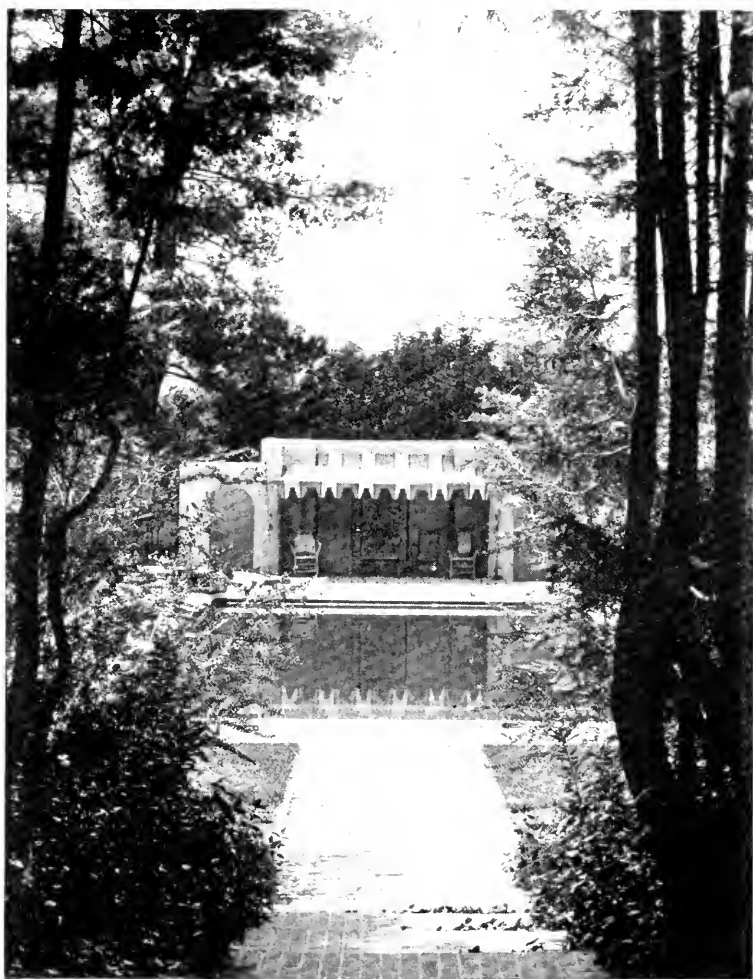
Quite likely he (or she) decamps to the porch. For the porch is a good American in-

stitution, supplying the necessary protection from wind and sun yet permitting still a measure of outdoor living. Indeed porch life has become almost a specialized native institution. It is a good institution, too, and fit to be promoted. Especially if the porch fronts upon the garden and has adequate family privacy. If it is built upon the front of the house, jutting out into the street, as public as the mailbox on the corner, that is quite another matter. Quite American, too, perhaps, but with a kind of Americanism which we do not wish to encourage.

The porch which is built upon the private face of the house and which forms a transition between house and garden is a feature of domestic architecture and life greatly to be praised. It deserves further development and still more careful study than it has yet received. In particular does the connection between porch and garden need to be more strongly made. A very successful example of such integral connection may be cited at Maxwell Court, Rockville, Conn., where Mr. Charles A. Platt designed both house and garden, tying the two together quite beyond the possibility of separation. On the garden end of the



FORMAL GARDEN POOL AND SHELTER, PASADENA, CALIF.



GARDEN POOL; SHELTER; BRICK WALKS

house is a large square glazed porch. On one side this porch opens into the house, on the same level, without a step up or down; on the other side it opens into the garden on the same level. Within this glazed enclosure are lusty growing plants, as it were in a cool conservatory; and outside are lusty growing plants in the garden. In every way the transition from house to porch and from porch to garden is so obliterated that one easily forgets that there is any difference.

When we are able therefore to make the porch as completely a part of the garden as it is of the house we have acquired a garden shelter which will serve all uses in a highly acceptable manner. In this sense, and under such fortunate conditions, the porch is to be regarded as a part of the garden—a garden feature quite as much as a detached summer house or pavilion all covered with climbing roses or fruitful grape vines.

Perhaps the most difficult physical problem of transition arises when the floor level of the porch stands at a considerable elevation above the ground level of the garden. Certainly there ought to be a flight of steps connecting the two; and these ought to be wide, easy, com-

fortable, inviting the traffic, that the passage from porch to garden should be made as nearly inevitable as possible. These steps moreover may be made the site of some good garden effects, with vines running on balustrades, or with flowers in boxes or hydrangeas in tubs or nasturtiums in vases.

THE TEA HOUSE

In a garden of any considerable size, however, something more than a porch will be desirable. A detached shelter may take the form of a tea house or a garden pavilion. The difference is theoretical and unimportant. Perhaps the pavilion is more classic, more ornamental, more fit for show, while the tea house has imputed to it more immediate service. In the tea house one might serve refreshments to guests, or one might linger for a visit or a game of cards, or one might sit by himself and read or think or play the flute.

The garden house is sometimes called a studio. If some one in the family has a legitimate use for a studio the name is unobjectionable and the purpose altogether pleasing. In one garden which I visited the studio, placed at a good distance from the house at the edge

of a quiet wood, was fitted with a fine piano, and here the really musical daughter studied her music lessons. No accommodation could be better.

A children's playhouse may be so constructed and equipped as to serve older members of the family at need; and when thus managed the playhouse may be the principal structure in the garden.

These detached shelter houses, on account of their size and importance, require very careful handling. They must be scaled with great judgment. If they are either too large or too small they are worse than failures. The degree of architectural development, in decorative detail, must be nicely adjusted to the other features of the garden. A very elaborate pavilion, with Corinthian columns or rich carvings, would overpower a small and simple garden; or a very plain arbor would seem poverty-stricken in a large and luxurious program.

Garden houses of the ordinary sort will nearly always be built of wood. There may be turned columns, but often there will be only plain sawed posts and railings combined with interspaces of sawed lattice pattern. These



A Garden Shelter Terminating a Principal Axis

Drawing by Sidney B. Waugh

wooden structures may be painted white providing the design is positively good and providing the house requires some emphasis in the place where it is to stand; or they may be painted green or gray if less emphasis is desired.

Almost always the garden shelter, whatever its kind and scale, will be combined with plenty of good horticultural materials. A large tree will shelter and shade it; vines will clamber over the roof; bright flowering plants — geraniums, nasturtiums, poppies, — will snuggle against the base or blossom from tubs at the railing; or flowering shrubs may half conceal the whole structure.

So large a feature as a garden shelter, when used in a formal plan, will necessarily always stand at a point of great emphasis. In a radial plan it would always occupy the center. In a rectangular plan it would terminate the major axis. Practically no exceptions could be made to this rule.

THE PERGOLA

Elsewhere in this book the opinion is recorded that the pergola should be used, if at all, as a connecting feature between other

architectural units. Contrary to this theory one sees so-called pergolas used in some American gardens as detached features, not seldom as termini for garden axes. In such positions what is wanted is a shelter, and the pergola is merely an arbor or pavilion given another physical form. But a false form, as I am bound to believe. For in place of the detached pergola, which is really a garden shelter, it would be manifestly better to build what is frankly a shelter house—a building which can be given its own true character.

But since it is entirely possible that in the lay-out of a rectangular garden, for example, it may occur that buildings form the enclosure on one or two sides, and since these buildings may be connected by genuine pergolas, it may work out so that the pergola will form a part or the whole of one boundary. Thus the pergola might even become a terminal feature; but inasmuch as, under the circumstances here imagined, the pergola would run across the end of the garden transversely to the axis, the real terminal feature would probably be a fountain, statue or similar figure framed in a single bent of the pergola. In short the pergola would not be a detached feature, nor

would it be used as a terminus for an axis, differing thus in two highly essential points from the arrangement herewith dispraised.

OTHER FORMS OF SHELTER

One of the nattiest pieces of furniture that ever strayed into a little garden is the parti-colored garden umbrella. With its stripes of green and crimson it gives a splash of color which can fairly compete with the Baltimore oriole in the elm tree. Such a sunshade well placed is very effective pictorially, and when it shades a small table and four chairs it offers the desired facilities for social meeting. Here we can have our tea and cakes; here we may have our afternoon committee meeting; here we may read and watch the baby playing on the grass. These garden umbrellas are very practical, not very expensive and ought to be more popular.

In our native gardens protection from wind is required oftener and more urgently than shade from the sun. In many parts of our noble country where well civilized people live it is hardly possible to grow roses or hollyhocks until the wind is broken. A competent windbreak is a necessity in many regions and

a real help to practical gardening everywhere. In the midwestern prairie states where the wind has its full head the universal necessity of windbreaks is generally recognized. Of course in thickly built towns one house and garage and tree planting protect the next. Even so some large growing trees or thick hedge is perhaps needed on the north and west. In the country every well kept farm has its large windbreak. This usually consists of a belt of trees, preferably deciduous species mixed with evergreens and faced with hardy shrubs.

In the small home garden where wind conditions are less severe a good high hedge may prove the best protection. A garden wall serves other purposes, but it is a highly successful shield against wind, and in the early spring days or late autumn one may sit close against the sunny lee of such a wall and enjoy many blessed hours of garden comfort which elsewhere would have to be spent in the house. Neither is it to be forgotten that the warm south front of this wall is the place where the first scillas and grape hyacinths break the glad news of spring.

When the garden is thus fully sheltered the

season of garden pleasures is lengthened at least two months—one month at each end of the year. And when the garden is properly sheltered and furnished the hours of its daily use are multiplied. The ideal for the garden is to make it an integral part of the home, to use it daily and almost hourly, and to enjoy it at all times. When this ideal is clearly perceived—when it has fully displaced the false conception of the garden as merely a spectacle to be exhibited to stray visitors—then we shall naturally turn to such simple conveniences as chairs and tables and shelters from the unfriendly wind and the too friendly sun.

X

TABLES AND CHAIRS



WHEN the garden becomes a genuine part of the home—a place to live in rather than a curiosity to be looked at—furnishings for use become a prime necessity. Tables and chairs are the most necessary of such furnishings.

I shall always remember with pleasure the home garden of Willy Lange near Berlin. (It was he who wrote the “*Gartengestaltung*,” one of the best modern books on garden design.) His small suburban home grounds, covering about two acres, included seven stations at which seats were provided, giving their invitation to linger and enjoy the picture. And at five of these seven places tables were also standing, where one’s book could be laid down, where a game of pinochle might be played, or, more especially, where the afternoon guest would visit over a cup of coffee and a plate of cookies.

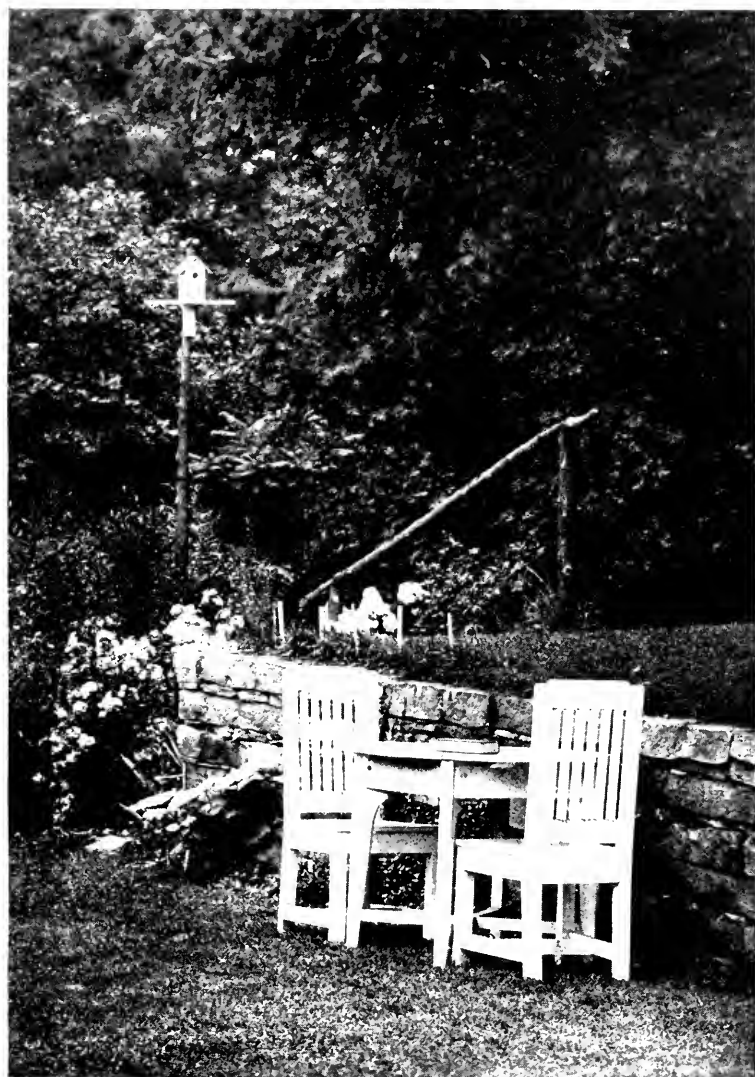
In our American home gardens we greatly need just that sort of furnishings. We ought to loaf and live more in those outdoor rooms;

we ought to work and play there; we ought to entertain our choicest friends there. We ought to read and play cards in the garden, and haply sometimes to take an hour there for thinking—one of the almost forgotten luxuries. We ought often to eat there, either as a family or with our guests. Yet these most desirable things simply can't be done in an unfurnished garden. Tables and chairs are indispensable.

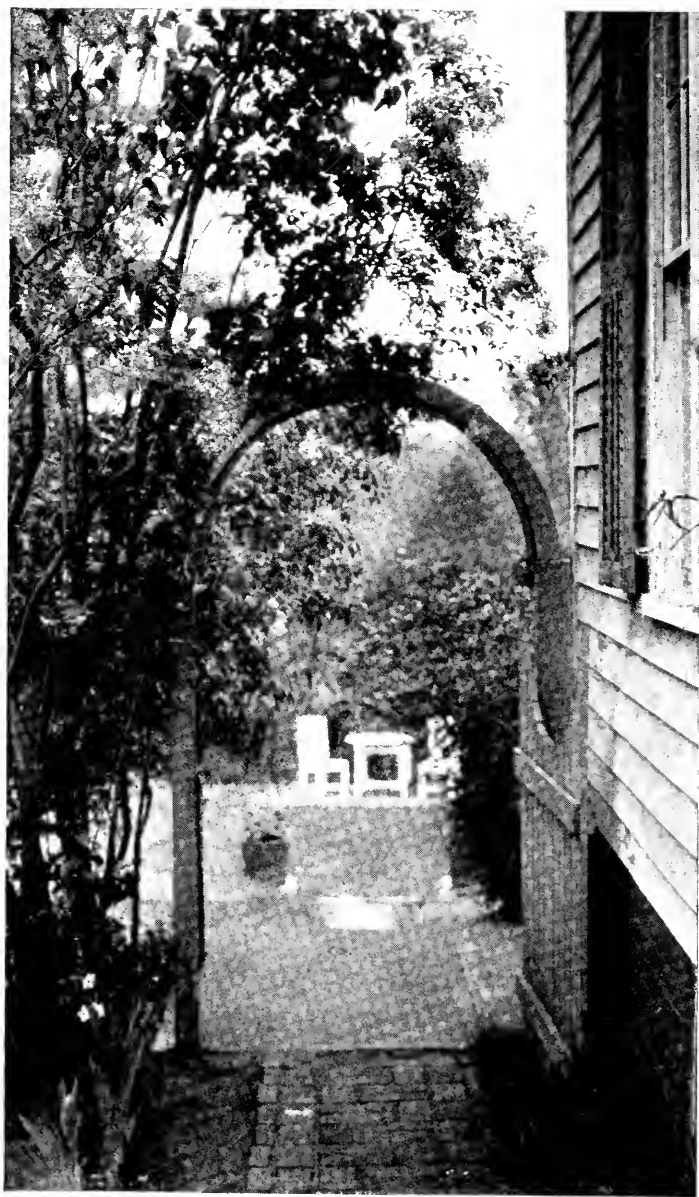
There is, of course, the possibility of overfurnishing a garden, just as some persons overstock their houses; but nowhere in America are we yet in sight of this danger.

POINTS OF VANTAGE

If now we inquire where in the garden these tables and chairs are to be disposed a fairly definite answer is ready. We have concluded (Chapter III) that the practical development of the home grounds will lead to a subdivision of spaces into small enclosed rectangles, each of which is to be treated as a garden unit. The most available treatment for the principal garden will perhaps follow the rectangular formula (Chapter II). In this case the garden will have a major and a minor axis; and at the



HOME-MADE CHAIRS AND TABLE



CHAIRS AND TABLE TERMINATING AXIS

termini of these axes are highly eligible points for seats or for tables or for both. Of course tables and chairs will not be wanted for all four termini in any garden—seldom for more than one;—but at the most convenient terminus these objects will serve two highly important purposes; first they will complete the structural requirement of terminating the axis, and second they will offer an advantageous point from which to view the garden.

In a garden designed according to the radial formula (Chapter IV) seats and a table may be placed at the center, especially if the garden is large and elaborate enough to justify a considerable pavilion at the center. It is hardly probable that a table with seats would fit at any other point in a radial garden; but single seats of appropriate design might well be placed at the peripheral termini of radial walks.

In less formal gardens or upon wholly informal lawns tables and seats may still be introduced if they are placed with due taste. Under a shady tree, somewhat at one side, is a spot worth considering. Or at a point of commanding outlook, where also some shade ought to be provided. And it ought to be noted just here, that when fine wide outlooks

are available to the home it is better to exhibit them from the most naturalistic portion of the grounds rather than from the formal garden.

It may be regarded further as a good principle of landscape architecture that tables and seats, when provided primarily for use rather than for decorative purposes, should be placed at nodal points along the lines of circulation, but preferably just at one side—never really interrupting the walk, but merely inviting the wayfarer to turn aside and rest and enjoy the prospect. For nearly always should such a seat be placed where there is something of special beauty to be enjoyed. Indeed this is the landscape architect's favorite means of calling attention to his best pictures, either within or without the garden.

GARDEN SEATS

Seats may be made or bought in great variety. Roughly classified there are, first, benches without backs, made of marble or stone, highly ornamental but impracticable for sitting purposes; second, benches with backs, made preferably of wood, and very satisfactory in use; and third, chairs of various manufacture.

Wood is by all odds the most pleasing material for garden chairs. Simple "colonial" designs are possibly best, though everything depends on where the chairs are to be placed. These garden chairs may be painted white if they are to serve as ornamental features in the garden; or they may be painted gray or dark green if something less conspicuous is desired. In any case they will need repainting every winter, since the exposure to sun and rain soon tells upon wood work.

"Rustic" chairs, and other "rustic" furniture, made of crooked roots or bent wood with the bark on, have been used to some extent and are still offered by active purveyors along the main motor routes. The good taste of such furnishings may be questioned. If these fantastic "rustic" conceptions are fit in any home yard it certainly is not in the formal garden.

Simple light chairs of iron—particularly those of strap-iron—are sometimes found which are so practical and so inconspicuous, when properly painted, as to be admissible in some retired parts of almost any garden. For entertaining considerable parties in the garden—at bridge, or for garden teas, receptions, etc.—simple folding wooden chairs are best.

These are brought out on demand and are promptly put away again. Perhaps it is just as well to rent them when required.

Benches of marble or of artificial stone are of great value as ornamental features in a garden and should be freely introduced in formal plans in spite of the fact that they are not very comfortable in use. As their purpose is ornamental rather than practical it is essential that each piece shall be well-designed, of good proportions, properly scaled to the position it is to occupy, and the decorations, if any, restrained and appropriate. Benches of splendid construction and excellent design are now available from several American manufacturers; and some very decent pieces may be bought from the stocks of the larger department stores.

GARDEN TABLES

Tables are placed in gardens for ornament, for use, or for both. Purely decorative tables are not very common; yet one may now and then find in some well-appointed place a rich and admirable table of carved marble which adds its touch of incontestable dignity to the luxurious garden. An occasional fine piece



A PUBLIC TEA GARDEN, NANTUCKET, MASS.



GARDEN SEAT AND TABLE

of this sort is purchasable in the shops dealing in European antiques, and a few rather good ones have been manufactured in America. Still we would have to put such a table down as a rarity; and we might say moreover that this is one of the elegancies which even a high-class American garden could spare.

Tables for use are quite another matter, and of course there is no objection to making a useful table also beautiful. Only the decorative results required in the average garden can usually be secured more effectively by other means.

Wood is the first material to be considered for garden tables—perhaps indeed for all kinds of garden construction. Good plain, well designed, solidly constructed wooden tables are always serviceable and good looking.

Once more it may be useful to insert a caution against grotesque “rustic” furniture and all other fads and freaks.

GARDEN HOUSEKEEPING

Tables, chairs and other furniture presuppose some housekeeping. Such things have to be kept in repair. The exposures incident to an outdoor life bring wear and accident to all.

Even a cement bench sometimes suffers damage and has to be restored. Wooden furniture ought to be repainted annually during the winter vacation.

But more than this is required. Tables and chairs ought to be kept clean; and this is a real chore in garden maintenance. Rain and blowing dust and roosting birds account for the fact that a garden seat is always a bit grimy; and when our pretty visitor comes to our garden party all sweetly set out in her most delicate and frilly garden dress it will not do to let her spoil it all by sitting in a soiled chair or eating from a muddy table. In fact there ought to be kept handy in every garden a stiff brush and a breadth of strong cloth wherewith to rub off chairs and tables whenever they are to be used. Even though they are in daily requisition such housekeeping is not too nice. No one thinks it too troublesome to dust the furniture within the house every day, or nearly that; and plainly the tables, chairs and benches out in the garden are much more exposed to soil.

Finally it is to be expected that the demand for good garden furniture, already established and steadily growing, will encourage constant

improvement in manufacture and design. Every home-maker who loves and tends his own garden should seek the best he can afford, either by making it himself or by patronizing the really good craftsmen. These details of good design and good construction in garden furniture might well engage more and more attention on the part of professional landscape architects.

XI

PLASTIC FIGURES



S TALL spreading trees with their shadows lying over rich green lawns are the very life of the naturalistic garden, so fountains and statuary are the natural and all but necessary organs of the formal garden. Along with fountains and statuary are to be considered bird-baths, sun-dials, gazing globes and all similar features which please the eye with their plastic forms.

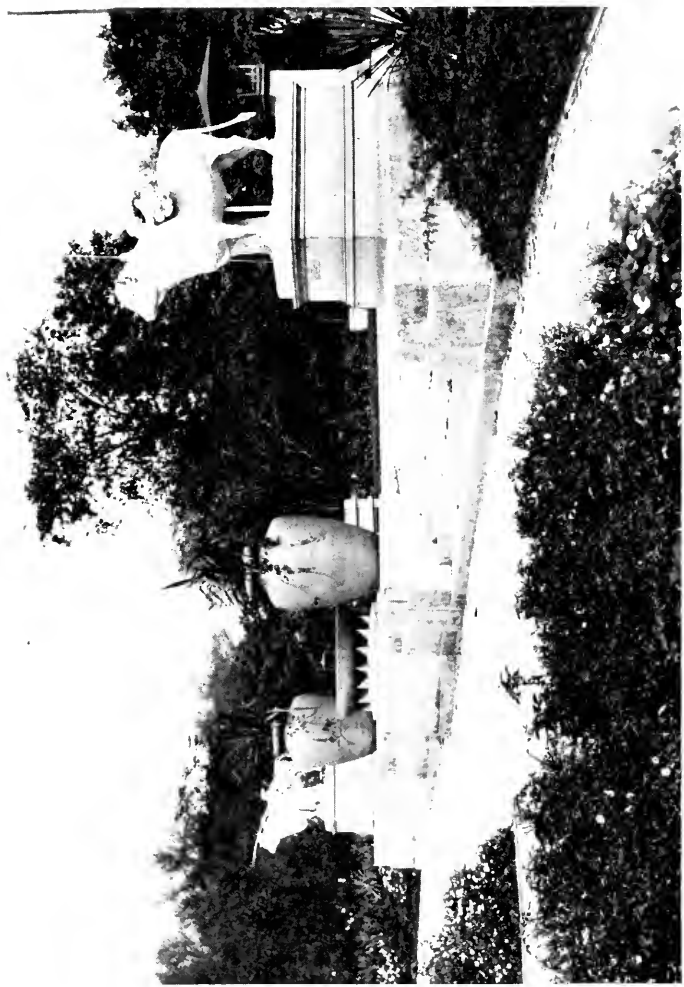
Unfortunately all plastic art remains yet comparatively undeveloped in America. It ought to be as easy to buy a good garden Hermes as to buy a good copy of a classic painting and hardly more expensive. And it ought to be as convenient to find a practicing sculptor to produce a pretty fountain as to engage a painter for a portrait of Madame. But it isn't. Perhaps some day it will be if garden lovers and landscape architects keep up a demand for good plastic figures.

Even as matters now stand, the quest is not, however, hopeless, either for fresh and origi-

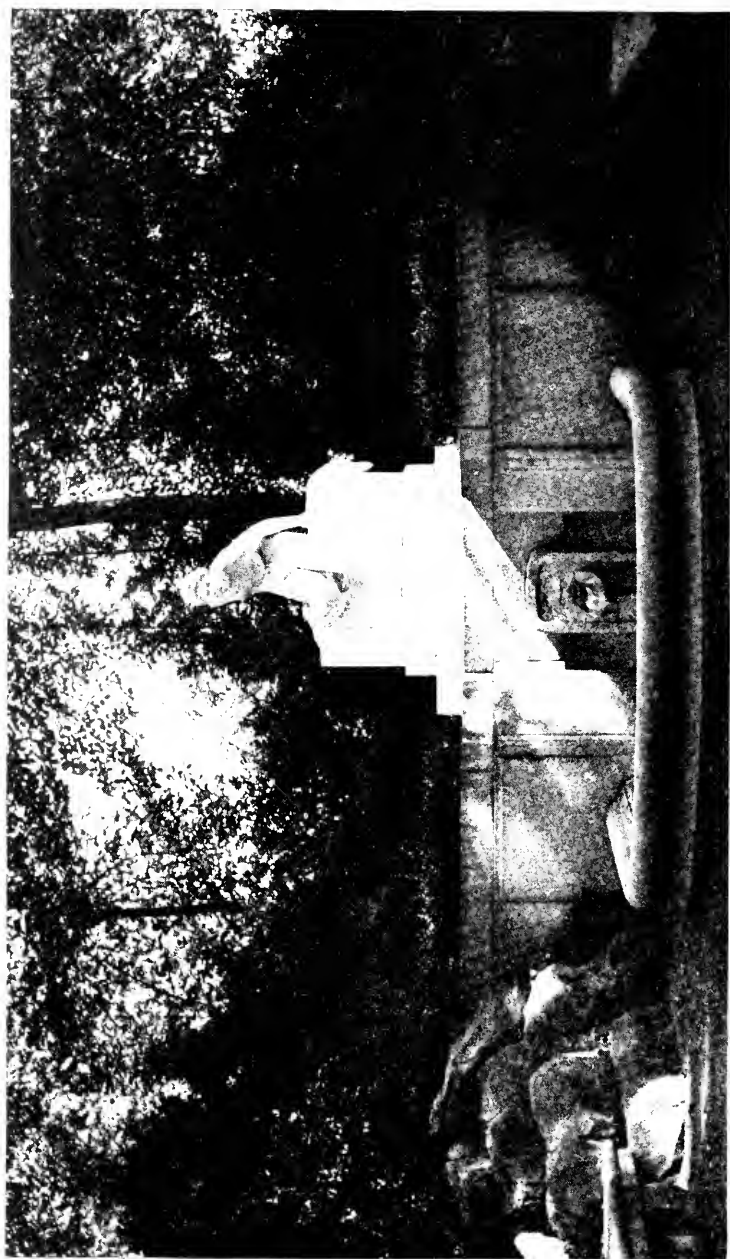
nal works or for good stock designs. Excellent small pieces, especially garden statuary, may be had of a few good American dealers.

As to materials we have a choice lying mainly between marble, artificial stone, limestone, terra cotta, bronze with a smaller possibility of using carved wood. Much objection has been made to marble on the ground that it will not support the rigors of the American climate. This criticism has in it considerable truth, yet fine marbles are successfully used in a few gardens where adequate care is assured. Perhaps terra cotta and artificial stone may be looked upon as the most generally desirable. Both materials are available in refined and beautiful designs for bird baths, sun dials, vases and some simple statuary. Either material may be worked to order quite successfully without extraordinary expense.

Sculptured limestone or granite may be had to order, as well as many native marbles. How freely available these materials are may be seen by examining the modern monuments erected in any prosperous cemetery. Here the curious visitor will find many good materials worked with great skill and sometimes with taste. While it may seem a hazardous leap



ENTRANCE TO ROSE GARDEN, GARFIELD PARK, CHICAGO. Mr. Jens Jensen, Landscape Architect



BUERGERWIESE, DRESDEN, GERMANY

from cemeteries to domestic gardens it would appear to be wholly feasible for the gardener to employ the same resources so cleverly drawn upon by the cemetery superintendent.

Bronze has its own uses. For memorial sculpture of the best sort it is unsurpassed. Small figures or groups are sometimes made of this material for garden use; and certainly when rightly designed and executed they give the garden an air of great distinction. The expense is comparatively large.

Carved wood has considerable possibilities and should be highly appropriate for garden use. Nevertheless it is practically unknown in America.

IDEALS OF DESIGN

Everything depends on good design—or nearly everything. Experience is a bit disheartening at this point, for it shows us that fountains and statuary, especially in public gardens in America, are often stupid and meaningless, sometimes atrocious, and only now and then really admirable and full of poetry. Yet when the plastic art does conquer all difficulties and achieve its natural and complete success the results are so delightful that

we must all try and try again, hoping for an increasing percentage of successes.

What constitutes good design? This central question could hardly be answered in a whole book on sculpture; in a book on landscape architecture only the most sketchy consideration can be given it. Plainly we do not want in American gardens any of the heavy coarse figures seen so numerous in the older Italian gardens and copied so stupidly into more modern works in France and Germany, sometimes even in England. Nor does any sane American want any of the elaborate roccoco work from later Italian and French patterns. It is to be gravely doubted, furthermore, whether the rather tame or inane models of the Victorian period in England would yield a thrill of joy to any home-maker of the present hour in Chicago or Galveston. In fact we find ourselves in this matter almost bereft of acceptable models from the past.

Fortunately the present is not altogether unfruitful. Very modern sculptors in Europe and America are doing some things which appeal strongly to our own feelings. American work seems to lean toward light and fanciful figures done in free and graceful

strokes with a view to naturalistic interpretation, such as fauns, children, Indians, animal figures, in playful poses. German, Russian, Danish and Swedish sculptors lean more toward symbolic figures, with more rigorous lines and less playful attitudes. Either method may be successful, but it may be suggested that the symbolic figures have not had so much attention in this country as they deserve. There are good grounds for feeling that simpler symbolism is likely to be more effective in garden sculpture than too much realism.

SUN DIALS

Highly desirable as sculptured fountains and statuary groups are in American landscape architecture, the average citizen will find himself much more interested, for his own garden, in such simple things as sun dials and bird baths. These are available to practically everybody. They ought to be much more commonly employed.

Many excellent designs are at hand in terra cotta, artificial stone or cement. Nor is it beyond the craftsmanship of a certain number of gardeners to make their own bird baths. There is, of course, a personality in home-made

work and a rich tingle of enjoyment which no purchased ornament can give.

The sun dial may be placed at the terminus of almost any garden axis, providing the axis is strong enough to warrant it and the sun dial strong enough for its position. Or it may become the central feature in a small radial garden. Conventionally it is quite the correct figure for the center of a rose garden. Naturally it will be impracticable, however, to place the sun dial at the southern terminus of a garden axis, since the sunlight is not likely to fall upon that spot, at least not in the open unbroken way in which it should fall on the northern side of the garden.

Greater facility is found in placing the sun dial in the fact that it may vary so easily in size. A large, monumental figure 30 feet tall may be designed for a large space, or a little pedestal three feet high may answer for close quarters. The design may be very elaborate or very simple. The materials may be rich or homely. This latitude in design is very grateful to the landscape architect but it follows that failure lies near to the man or woman who has any deficiency in taste.

How varied the styles in sun dials are will

be appreciated best by the reader of Mrs. Earle's book.* Anyone who essays to design a dial for his own grounds should give careful study to all available models, as well as to the mathematics of gnomons and azimuths.

BIRD BATHS

Even more practicable, and to the common taste more desirable, is the bird bath. To have birds always about the house betimes nesting and singing and making themselves quite at home, is a delight against which only the most hard-boiled sinners are proof. Now for the attraction of birds, water is a first necessity, more important even than bird houses and food plants.

Yet the bird bath is to be considered quite as much for the decorative effect which it gives in the garden design. In a simple, graceful and dignified form and in the rich colors of good terra cotta or of artificial stone, it greatly pleases the eye, contrasting richly with the green of foliage or with the bright colors of flowers.

Locations appropriate for a sun dial are,

* Earle, "Sun Dials and Roses of Yesterday," New York, 1902.

generally speaking, best also for a bird bath. That is the decorative figure of the bird bath can be employed to terminate an axis or to become the central feature of a small circular garden. Of course there is always the problem of scale never to be forgotten.

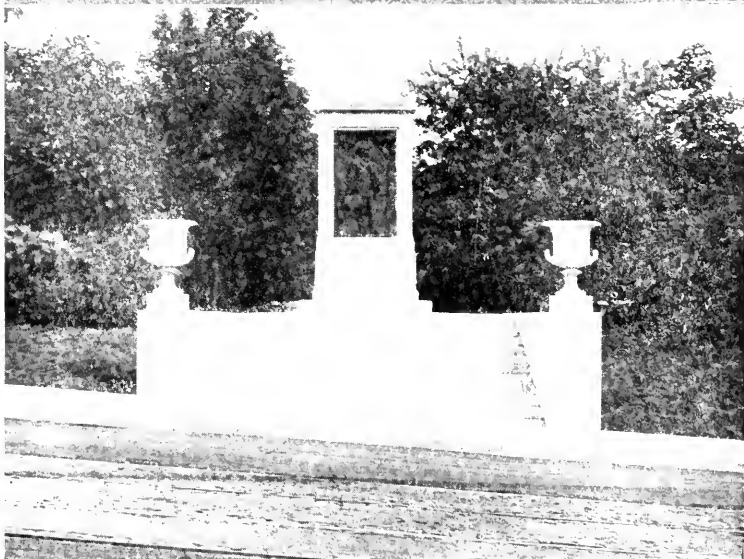
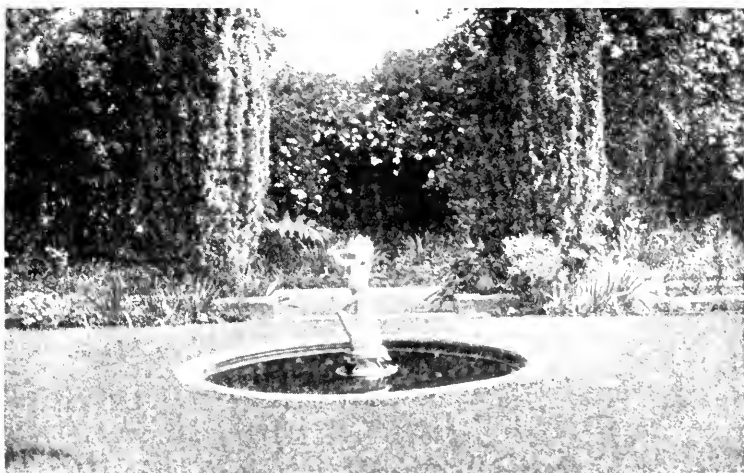
Very satisfactory bird baths are to be found in the market. They can be bought through any good florist, from some department stores, or any landscape architect can find them for his clients. At the same time the greater delight of owning an exclusive and personal work of art should be kept in mind. Perhaps the cost is not too great, and then it will be much better to employ the landscape architect or the sculptor to design an original bird bath. A certain number of garden amateurs will indeed be able and deeply interested to design and construct their own.

GAZING GLOBES

Another item of decorative furniture quite legitimate in the formal garden is the gazing globe. The globe is nearly always set on a simple pedestal, and so presents substantially the same figure as a small sun dial. It may



GROUPING IN CLASSICAL STYLE, PHILADELPHIA



GARDEN OF MR. MYRON HUNT, PASADENA, CALIF.
MEMORIAL, THE PASEO, KANSAS CITY. Mr. George E. Kessler, Landscape
Architect

tions in the garden. Perhaps its most natural setting is at the center of a small radial garden. Because it can not be given any large bulk it will hardly serve in a large space, though it might possibly terminate a minor axis, or might be used in combination with other plastic figures, or with a rose trellis or some other feature to build up a terminal group.

Gazing globes in various sizes may be bought, with or without pedestals, from florists or from department stores. In general the simplest pedestals are best, though this part of the figure should have sufficient mass to justify the rather conspicuous position to which it is chosen.

No strong fashion for gazing globes has set in in America, and perhaps it is just as well that this rather trivial garden trick should not be unduly popularized.

VASES AND TUBS

At first mention it would seem that a vase would be highly appropriate to the garden. The typical garden vase, however, does not rely on its utility for its place in the picture, but wholly on its mass, its graceful form and

its pleasing color. Of course vases are sometimes used for the growing of hydrangeas, geraniums, sheared box, bays or other horticultural material, but such use is the exception rather than the rule. A vase, to find a place in a good formal garden, should have a certain size, say sixteen inches high or more; it should have a good color, reds and soft clay colors being best; and it should above all else have a figure which delights the eye.

Vases meeting these specifications are made of terra cotta, pottery, artificial stone, concrete, or sometimes of other materials. Very attractive designs are to be found in the markets.

A large vase might have sufficient mass to serve as the terminus of a minor axis in a small garden, especially if given a suitable elevation upon a good pedestal. It might even answer all requirements as a central figure in a quite small radial design. But the customary practice of placing vases generally on steps, at the sides of gates, or at the corners of pools is perfectly sound. Such locations are undoubtedly first to be considered.

While the garden vase is primarily a decorative unit the garden tub is first of all utilitarian.

The tub, usually made of wood, is used to hold sheared bay or box trees, to grow hydrangeas or other showy shrubs, or even tender herbaceous flowering plants. Of course orange trees, lemons, palms, agaves and similar plants are often tubbed for the gardens of Italy or Spain, or for those gardens in the American subtropics which flourish upon Spanish motives.

Every garden tub should be of good mass. It should have proper scale. It should not be too big, looking coarse and ugly; nor should it be too small, seeming ineffectual or useless. It should be of good design. Some tubs are much better than others in this respect. It should be painted an agreeable color. This color will nearly always be green or neutral, the idea being to make the tub inconspicuous—quite the contrary from the treatment of the garden vase.

Tubs and vases, along with much other garden furniture, will be moved out of all northern gardens in winter. The plants contained, if any, will receive their appropriate horticultural care, while the tubs will be repaired and given a fresh coat of paint.

OTHER FEATURES

Several other kinds of furniture have much the same purpose in the garden as statuary and sun dials. In effect they are plastic figures. Their decorative value lies in the mass which their figures show to the eye. For example, a bird house may be quite useless to the birds but its mass and color may make it highly pleasing to the human eye. Pergolas and garden shelters are not infrequently built upon much the same idea, that is for the decorative effect of their mass rather than for their purely practical uses.

XII

WATER

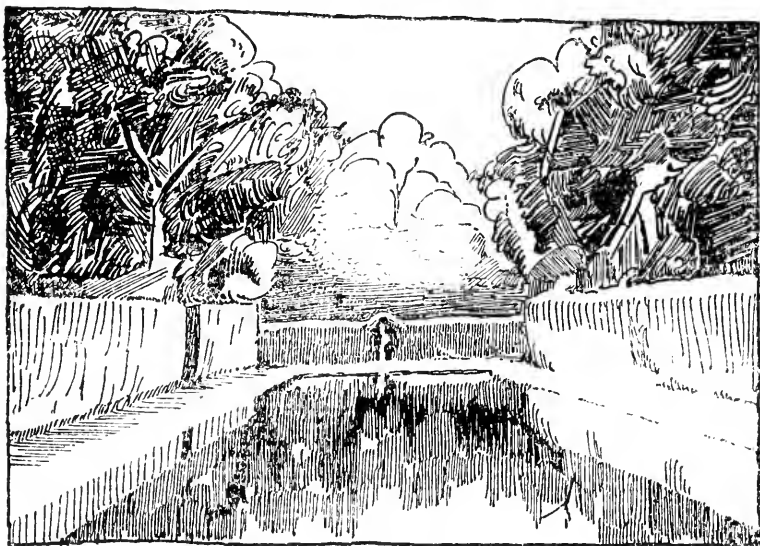


IT HAS long been a tenet in all systems of landscape architecture that every garden should include some water. Some schools of practice—as, for example, the Japanese—have held more firmly to this prescription than others; but certainly the commanding value of water is as obvious in formal gardening as it can be in any style or mode. Special consideration should be given to water in designing a garden in the full formal manner of the rectangular formula.

In formal gardens water may appear in a variety of forms, the more usual being (a) pools or basins with geometrical margins, (b) playing fountains, (c) canals, or, at the minimum, in (d) bird baths.

FORMAL POOLS

A garden pool may be of almost any size or form, though very simple forms are best. At one extreme would be the little pool, perhaps only 3 x 4 feet in size, in which a few gold fish play and a dwarf *nymphaea* grows. At the



The Water Mirror
Comprising the Principal Feature of the Garden

other extreme one may imagine a large sheet of water occupying practically the whole of a formal garden and highly elaborated along its borders and in its furniture. The Basin of Appollo in the gardens at Versailles may be cited as an example; or the large interior basin on the grounds of the Columbian Exposition in Chicago in 1893.

Many well appointed gardens of the present day include an outdoor swimming pool.*

* For the practical construction of swimming pools see A. D. Taylor in *Landscape Architecture*. For working details in the construction of garden pools see A. D. Taylor in *House Beautiful* 56:353, Oct., 1924.

Nine times out of ten or oftener this feature should be made part of a formal treatment constituting, in the whole, a garden of the rectangular pattern.

The pool may be placed at the center of the garden, or it may be placed toward one end of the main axis. In the latter case the plan should be so contrived that the terminal object at that end of the main axis is reflected from the surface of the water. The terminal feature should then be strong of outline and white in color in order to give a bold reflection. Mutli-colored objects of intricate form are apt to be lost in such a mirror.

The plan is not untried of placing four homologous sheets of water in the four quadrants of a formal garden. This makes necessary a fairly elaborate design; but if well executed the result may be very gracious.

The garden pool need not be deep. Exigencies of construction rather suggest making it shallow. Eighteen inches or two feet would be ample in most cases. In order to enhance the mirroring effect of the water the bottom of the pool should be of quite dark colored material—perhaps of a layer of cement heavily charged with lampblack.

Statuary and sculptured fountains may be used most happily with reflecting pools, but it is important then to plan these groups so that the figures appear at the ends of structural axes and not within the central areas of the garden.

With very rare exceptions the garden pool will gain greatly in beauty if there are some plants growing in it. But not too many, for overplanting is dangerously easy at this point. And there should not be too many species. A jumble of ten or a dozen different sorts will ruin the best pool in the world.

A stock of gold fish may be kept in any good pool, especially if the water is constantly renewed. They are interesting and ornamental and moreover they devour the mosquito larvae, thus rendering a special public service.

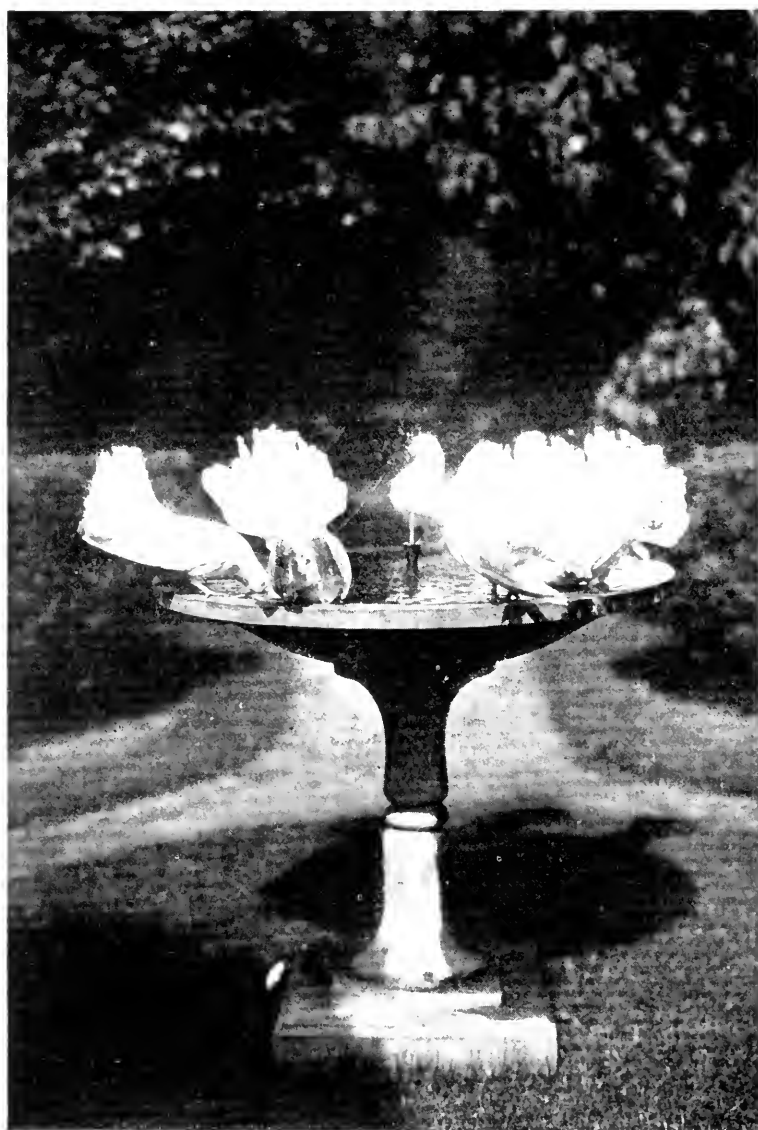
In the northern states gold fish and plants will have to be removed and the water drawn off from garden pools each autumn before heavy freezing weather arrives.

FOUNTAINS

One who visits Rome, Luzern or some other Old World cities will be fascinated by the fountains. In every garden and on every street corner he finds them; and besides the merry



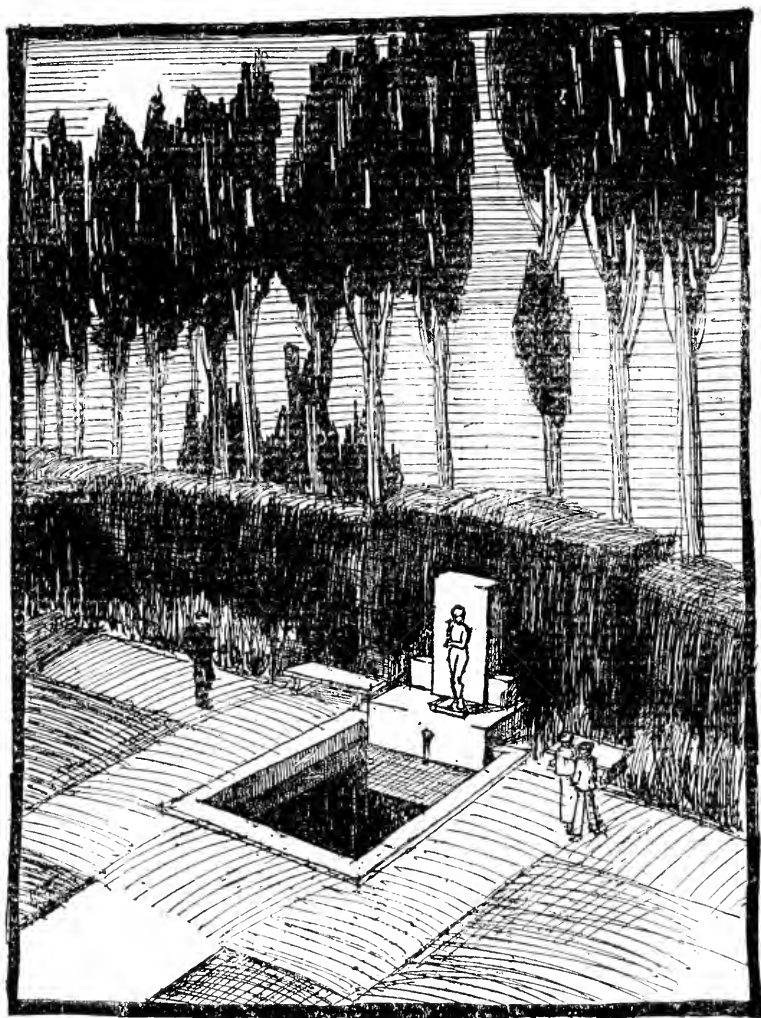
WALL FOUNTAIN, MAXWELL COURT. Mr. Charles A. Platt, Architect



GARDEN FOUNTAIN, GROSVENOR GARDEN, AMHERST, MASS.

tinkle of the falling water he is bound to admire the sculptured figures. While they are not all masterpieces a great many of them are homely, indigenous and delightful. The visitor is sure to feel that it would be pleasant to have more fountains in America. Especially in formal gardens are they highly desirable.

A fountain, of course, may be almost anything. It may be a mere jet of water thrown up by a spray nozzle, or it may be a sculptured group as elaborate as a political platform. The water may be thrown high in air, or it may be permitted to tinkle, slowly and musically, into its little basin. Good simple sculpture, depicting either human or conventional figures, is most desirable. Unfortunately good sculpture is hard to find in America, especially at a price which the average householder can afford to pay. Quantity production of plastic figures to be purveyed through the department stores offers no alluring promise. If the demand were brisk enough suitable sculpture might be produced by good artists so that any family in comfortable circumstances could have its own. Sculpture is not essentially harder to produce than oil paintings, but thousands of people who feel that they could not



Pool Used with Principal Terminus
Design and Drawing by Sidney B. Vaughn

keep house without two or three good paintings would never consider the purchase of an original piece of sculpture for the garden. In this matter let us hope for better times coming.

CANALS

In some of the ever famous gardens of Italy water appears to good advantage in canals. Some of these are built on a steep gradient so that the water comes rushing and gurgling down, sometimes peeling over formal cascades; sometimes they are built on the level, or so nearly level that there is hardly a perceptible current.

In any case the canal forms a strong and conspicuous line in the garden—so conspicuous indeed that it can hardly be placed anywhere but on the major axis line.

OTHER WATER FEATURES

One of the most strictly fashionable items in the modern garden is a bird bath. Certainly nothing can be said against it. Such a dainty feature, however, requires to be handled with considerable taste. The bird-bath should first of all be an object of indisputable beauty. It should be dignified and pleasant to the eyes,

not heavy, grotesque or over-drawn. If the garden owner can afford a small piece of original sculpture it may well combine here with the bird-bath. But original works of art are not necessary. The current fashion has called into the market many ready-made bird-baths of first rate design, executed in good materials, mainly artificial stone and terra cotta. It is so easy to buy a good bird-bath that no excuse can be accepted for a poor one.

Next there is the question of situation to be settled. Now the bird-bath, like any other article of stone or terra cotta, fits more snugly into the formal garden than into the woods; and the birds themselves, having no prejudice in the matter, will come to one garden as readily as another. A good bird-bath makes a very appropriate feature for the center of a small and simple radial garden, as, for example, in a rose-knot. Or it may be made quite the thing at the terminus of a minor axis in a rectangular garden plan.

A bird-bath set out in a detached position on an open lawn, without clear reference to other parts of a planned whole, is simply a stray piece of furniture. The birds may be entirely satisfied with it, but no human mind

which cares for logical design can take any pleasure in it.

Much depends on scale always; that is on good proportions. The bird-bath is especially vulnerable to nice judgment at this point. If it is too small, or set too low for the position to which it is assigned it looks weak. If it is too large or too tall it will seem out of place; though mistakes in this direction are naturally rare.

Informal pools are sometimes attempted, but are obviously unsuitable to formal gardens. For reasons discussed elsewhere a wide outlook over ocean or lake, while always delightful, is not properly reckoned into the formal garden. It should be used to the fullest possibility but the view should be developed from some other part of the grounds. In like manner running water in a natural or naturalistic brook-bed is to be treated as a part of the wild or natural garden, not as a feature of any formal garden. Running water more or less formalized in canals, on the other hand, may be used to emphatic advantage in a formal plan.

PLANT MOTIVES

Certain plants are especially adapted to use with water; others are somewhat conventionally associated with pools or flowing streams. Iris, for example. Now iris will thrive quite as well in any good sunny garden as at the edge of a pond, yet there appears to be a special psychological satisfaction in tying the two together.

One caution needs to be reiterated, namely, that overplanting should be rigorously avoided. Overplanting is a sin anywhere, but when perpetrated upon a pretty mirror of water it becomes a crime.

If elaborate planting of large basins becomes necessary then special study should be given the whole fascinating subject of aquatic plants. Meanwhile the following list includes the more popular and available kinds.

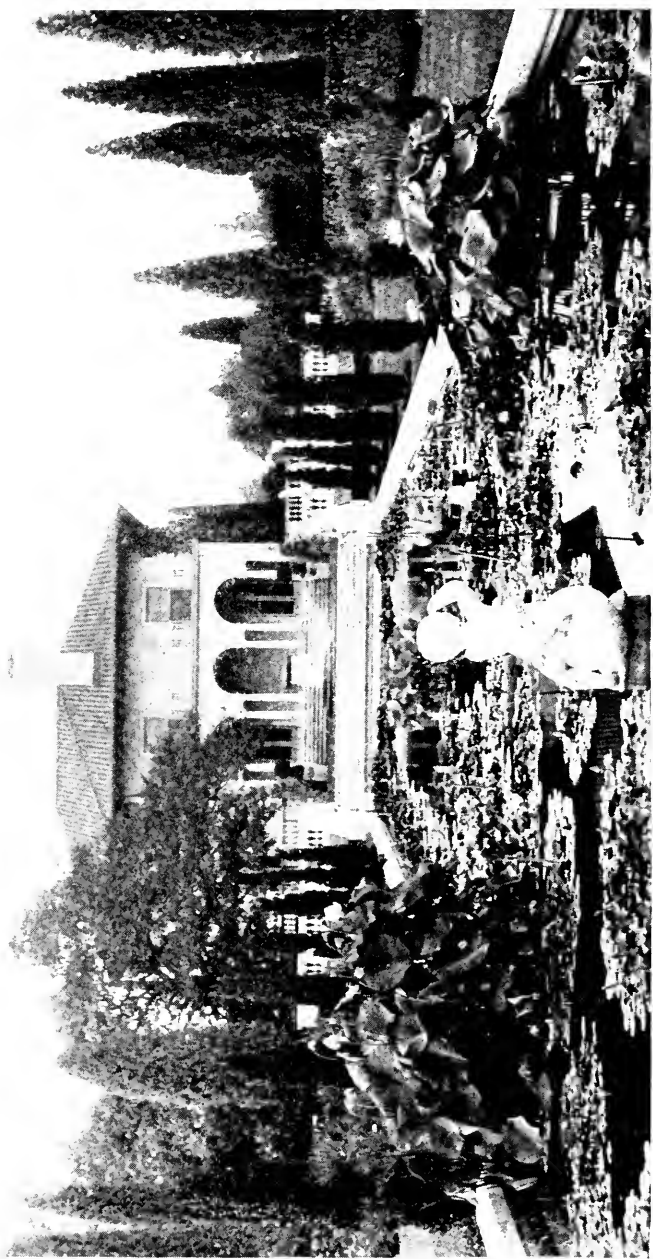
Acorus calamus.* Sweet flag will grow in moist or shallow water.

Agapanthus umbellatus, African lily, robust, rather tall plant with pale blue flowers in umbels, usually grown in tubs; suitable and

*The nomenclature here given, both latin and vernacular names, is that of "Standardized Plant Names," Salem, Mass., 1923.



MARBLE FOUNTAIN WITH SCULPTURE



FORMAL POOL WITH FOUNTAIN AND PLANTINGS

very decorative for the borders of pools and fountains.

Alisma plantago-aquatica, Water plantain, sometimes recommended, may be used in large pools, but is better for ponds.

Aponogenton distachyus, Cape pond-weed, is highly recommended by Mr. Wm. Tricker for pool planting.

Arundo, Reed. These are very popular, especially the well-known *A. donax*, growing six to ten feet tall, which is rather too large for formal gardens, unless in quite large quarters.

Butomus umbellatus, Flowering rush, is a hardy perennial aquatic of easy culture.

Calla palustris, Water arum (not Calla lily), is a small perennial aquatic very well suited to use in formal pools.

Caltha palustris, The homely Marsh marigold, may be freely planted along formal canals and even at the margins of pools, especially if rather lush plantings are intended.

Carex, Sedge. Many of the sedges are useful in water gardening. The one chiefly used by florists and nurserymen is *C. morrowi*.

Cyperus, Sedge. Very satisfactory for aquatic uses. *C. papyrus*, the papyrus of Egypt, growing four to six feet high, is often used,

as is *C. alternifolius*, the umbrella sedge. Several other species are in cultivation.

Epilobium hirsutum, Hairy willow weed, is an old-time garden flower, now somewhat rare, but suitable for use along water margins; grows two to four feet high, flowers showy.

Filipendula ulmaria, European meadow-sweet, sometimes called an herbaceous spirea, is a delightful hardy plant well fitted to show its best at the edge of a formal pool or canal.

Hemerocallis, The Day lilies, all show to good advantage when planted near pools, fountains or canals of water, and may be freely used for such plantings in formal gardens. The roots should be set high enough above the water level to get good drainage, and an abundance of rich soil is desirable.

Hippuris vulgaris is mentioned in Bailey's Cyclopedia as producing "an attractive effect with the simple shoots standing above the water in ponds".

Irises of many kinds are used in connection with water gardening, though most species, including the Japanese iris, are more effectively cultivated on dry land. The best water plant in the genus for use in the United States is perhaps *I. pseudo-acorus*, with lusty foliage

and tender yellow flowers. But several of the more popular species, including Japanese, German, Spanish and Siberian iris, may be used along the margins of pools and fountains. They should be set up out of the water, however, where the rhizomes will get good drainage and sun.

Kniphofia, the Torch lilies, or "Red-hot poker plants", are used in sunny gardens and in California are much affected for Spanish or "mission" gardens amidst arid surroundings, yet several of them may be used freely along the margins of pools or canals in formal gardens, and for such plantings are quite desirable.

Lobelia cardinalis, Cardinal flower; a very wild native species, but not difficult to cultivate except that it is not permanent and must be often renewed from seed. It is so striking in its autumn flowering that one might take considerable pains to grow a few plants beside his garden pool, or more particularly beside a flag-bordered canal.

Lysmachia, Loosestrife. Several species suited to shores of ponds or running water and to some extent adaptable to the requirements of formal water pieces.

Lythrum salicaria, The Purple loosestrife, is a hardy and popular native plant (especially the var. *roseum*, which is much better) for planting by ponds and slow streams. It may also be used freely in formal gardens.

Menyanthes trifoliata, Bogbean, is described by Bailey in the Cyclopedia as "a very interesting bog plant, growing often in shallow water". It is a native of North America and grows a foot and a half high.

Nymphaea, Water lily. These beautiful plants are well known, but not well enough. The hardy native species and varieties are everywhere admired. There are now offered by nurserymen dozens of beautiful hybrids, many of which are wholly practicable in cultivation, others being available to good gardeners who are willing to take necessary pains. The Pygmy water lily (*N. tetragona*,) may be particularly recommended for small pools and fountain basins.

Phalaris arundinacea, Reed canary grass, is admired by many. The striped variety (var. *picta*) is too popular, being rather a freak.

Polygonum. The polygonums are mostly quite effective for waterside planting; but on account of their rank growth and coarse foli-

age are better for wild garden uses than for formal surroundings.

Sagittaria, Arrowhead, several species, nearly all native to shallow ponds, hardy and quite ornamental, suitable for planting in pools. *S. subulata* is a small species desirable for small pools. *S. natans* is also to be recommended.

Scirpus, the ancient Bulrush, perhaps the very kind where Moses had his nursery. Suitable for water gardens; several species and varieties in the horticultural trade, especially varieties of *S. lacustris*, including the popular but gaudy and objectionable striped var. *zebrina*.

Tritonia (*Montbretia*) in several species and horticultural varieties gives a delightful effect when planted along the margins of small pools.

Typha latifolia. Cattail, a common marsh plant growing 4 - 6 ft. high but excellent for large pools.


Vallota purpurea, Scarborough lily, often grown in pots for a porch ornament, may be much better employed in pots or tubs for the borders of pools or fountains and in formal gardening generally.

Veratrum, False hellebore, or Indian poke, grows naturally in swampy places and makes a good ornamental plant, but is not so well adapted to the requirements of formal gardening. Still some of the species may be used occasionally if wisely handled.

Veronica longifolia, the Beach Speedwell, 2 ft. tall, is effective planted at the margins of pools or fountains. Other species of *Veronica* may also be used.

XIII

ROSES AND FLOWER BEDS

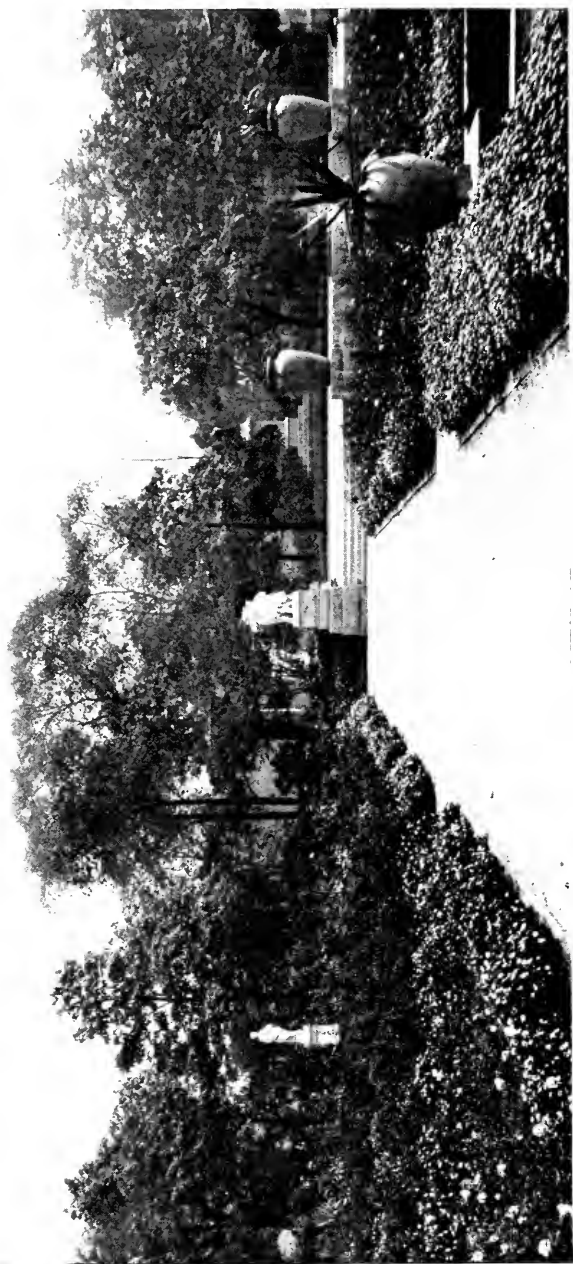
“HE queen of flowers” has a particular claim upon the formal garden. Long association with Persian seraglios, with the gardens of ancient Greece and with the magnificent formal gardens of old Italy, with the set and sheltered gardens of Mother England, with the Georgian culture of colonial America and with all the poetry and tradition of our language lifts the rose quite out of the company of common flowers, however lovely, and teaches us to think of them in different terms and with a different background. With the background, in short, of the formal garden. So when a modern American author, inspired to the making of a good garden book, began to write of roses, she called her essay “Sun-Dials and Roses of Yesterday”.* The sun-dial, of course, stands for the formal garden, thus giving us together the approved combination of roses and formal gardens with the tradition of the poetic past.

* Earle, “Sun Dials and Roses of Yesterday,” New York, 1902.

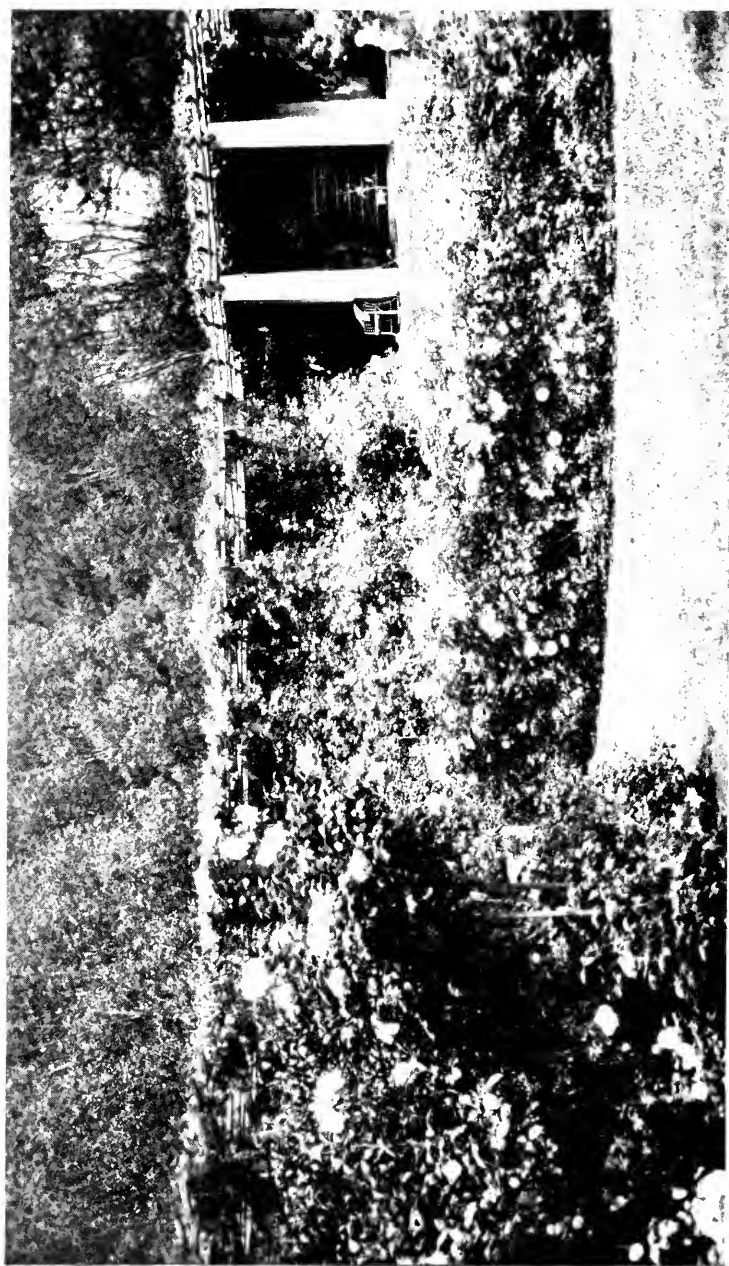
But this association is supported by more than poetry and tradition. Practical horticulture tends to the same decision. For the roses, with the exception of well-known hardy species, do not take at all to the wild garden or the open border. They have to be grown in good set beds, well dug, with drainage underneath and timely culture above. And because tea roses and hybrid teas, and all their kin and progeny, have to be planted in beds for these merely practical reasons the rose garden becomes more or less of a formal feature from the start.

Whether, therefore, we intend to indulge ourselves with a mere knot of roses—a wistful dozen plants,—or whether we begin to plant a whole acre to make a stunning show in the public park, we still look to the formal garden for our planting and to the principles of symmetrical design for our ground plan. If one will look at the plans of existing rose gardens in America,* such as the famous one in Elizabeth Park, Hartford, the one in Lyndale Park, Minneapolis, designed by Mr. Theodore Wirth, the one in the Missouri Botanical Garden, St. Louis, designed by Mr. John Noyes,

* See the American Rose Annual for 1918, Harrisburg.



ROSE GARDEN, GARFIELD PARK, CHICAGO, Mr. Jens Jensen, Landscape Architect



ROSE GARDEN IN IPSWICH, MASS., Mr. Arthur A. Shurtleff, Landscape Architect

the one in Garfield Park, Chicago, done by Mr. Jens Jensen, he will see that this necessity for formal design has been always recognized.

In the chapter on radial design the opinion is offered that this radial pattern is especially suited to the rose garden. It is the formula adopted, in fact, in Elizabeth Park and in the Missouri Botanical Garden, while in Garfield Park Mr. Jensen used a curious and very interesting combination of the rectangular formula with the radial. The circular rose garden, sometimes reduced to a mere round—or half-round—rose-bed, was a feature of many of the garden plans in Elizabethan and Georgian times in England and America. The idea, while never lost, is worth a revival for present use.

To plan a formal rose garden is to raise immediately the question of enclosure. For good effect enclosure is essential. Doubtless persons not committed to any formula will hardly feel the compelling need of walling in their little ten-foot bed of roses, even if it be circular, and radial and have a bird-bath in the midst. But enclosure is a matter of degree, and something much less than a high brick wall may serve. Even so slight a frame as is

supplied by festooning climbing roses from stake to stake round the circumference of the rose-bed would help powerfully to tie the rose-knot where it belongs,—to give it its sense of completeness, of unity, and to save the appearance of a loose round cookie accidentally dropped upon the lawn.

Or the small formal rose garden may be enclosed by a hedge, and this hedge may be as low or as high as the taste of the designer, influenced by the size of the rose garden, may determine. The hedge may be of box, of roses, of sheared arbor-vitae, or buckthorn, of hardy orange, of myrtle, or of any one of a hundred other highly available shrubs, evergreen or deciduous. In a certain number of cases the round rose garden may be set into an existing depression, the sides of which may be brought up to the desired height by banking or by building up with loose stones, or by any other means within the circumstances and invention of the designer.

The large formal garden should have a still more emphatic enclosure, of trees, high shrubs, or buildings. Lacking these it may be walled in or a good high trellis may be constructed. Either wall or trellis should be

covered with climbing roses or other horticultural material, such as espalier fruit trees or grape vines.

It is not within the province of the present book to give directions for the culture of roses, the selection of varieties, or to discuss other horticultural phases of the making of rose gardens. These may be found amply treated in other books.* What here interests us is the design of the rose garden, its formal structure and its organic relationship to the other parts of the grounds.

BEDDING PLANTS

Other plants besides roses may be grown in beds. For a good many kinds the cultivated bed, as distinguished from the free border, is quite as necessary as for tea roses. Geraniums, scarlet sage, heliotrope, coleus and florists' tender stock generally can hardly be introduced into the garden successfully except in some style of formal bedding. Indeed many of the very popular kinds are always known as "bedding plants."

Now these tender bedding plants have suf-

* See such works as Hubbard, "Out-door Rose Culture," New York, 1926.

ferred for fifty years in America under a general unpopularity. Their low reputation has been especially depressed among landscape architects. Many reasons could be cited to explain this eclipse; and it may fairly be said that the soundest taste in this country is against their general use. Americans quite naturally and properly prefer the primeval woods and the native landscape; or if these are out of reach they want good indigenous trees with the shadows falling on cool unspotted lawns.

All of which is part and parcel of the good American preference for the natural style in landscape architecture; but if any place be admitted for any formal gardening—and such a place unquestionably exists, even in America,—then the making of flower beds and the culture of bedding plants assume a very different standing. In short, in formal gardening flower beds and pattern beds and all the arts of “bedding out” have a quite proper and not unimportant place.

Every planting bed for coleus, alternanthera, cannas, fancy caladiums, for geraniums or begonias, for spring tulips, will be designed in some symmetrical figure. These symmetrical beds must therefore have a perfectly for-



FORMAL FLOWER BEDS, THE PASEO, KANSAS CITY. MR. GEO. E. KESSLER, LANDSCAPE ARCHITECT



SIMPLE FORMAL FLOWER GARDEN IN PASADENA, CALIF.

mal geometrical relation to the formal garden plan. Indeed the shape of every bed should grow directly out of the plan of the garden. Designed in this way, and used with discretion in due reference to the larger garden effects and to architectural surroundings, bedding plants may yield a real esthetic delight. Decorative results may be produced on a par with those seen in tapestries or in parquetry.

Some critics have asserted, especially in years now well past, that pattern bedding was unsuitable to America on practical horticultural grounds, it being claimed that the climate of this country would not give good results with some of the most important bedding plants. Without being in any manner an advocate for this type of gardening I am ready to challenge this statement. After having made personal comparison between the gardens in every part of America with those of all central Europe and the British Isles I roundly maintain that our climate is as good as any. We have on this continent all kinds of climate, and naturally some plants excel in one part of the country while others come to perfection elsewhere. But I have seen as good beds of herbaceous begonias in Vermont, as

good tulips in Washington and in Boston, as good geraniums in Chicago, as I ever saw anywhere. And the best pattern bedding I ever saw in the world, of such universal materials as coleus, acaranthus and alternanthera, was in Swope Park, Kansas City.

FLOWER BEDS

In point of garden respectability flower beds have always stood higher in this country than mere pattern beds. There has been some leaning of fashion toward hardy old-fashioned flowers grown in a supposedly old-fashioned manner. This style, whether authentically historic or not, has asked for flowers in borders or in beds. And this combination of beds and borders falls almost inevitably into symmetrical patterns. In other words it fits the scheme of the formal garden and it does not fit the lay-out of the natural garden.

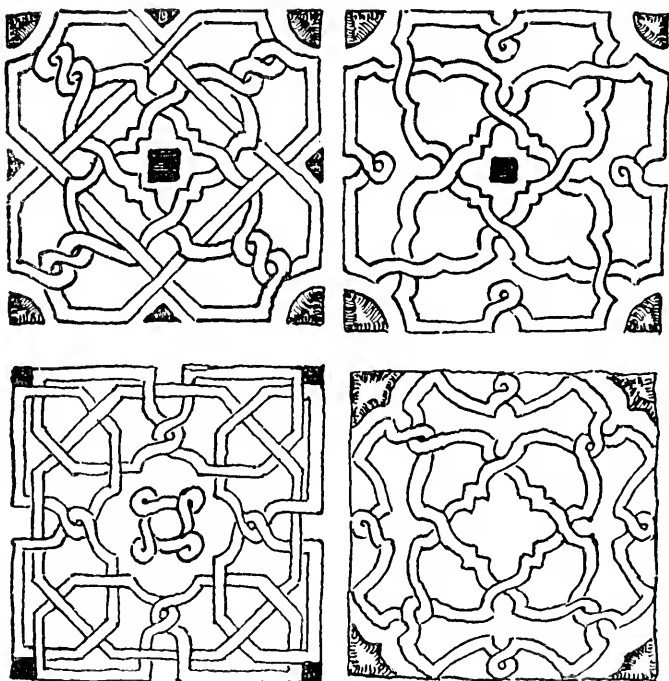
Beds for hardy perennials,—peonies, phlox, anchusas, hollyhocks, gaillardias, and all the rest—need to be less complicated in outline and less elaborate in interior pattern than beds for such materials as stevias, alternantheras and colei. Nevertheless even the simplest beds, in plain unassuming squares and

rectangles, will be best when balanced one against another in straightforward symmetrical plan.

Such beds may then be planted for mass effect. Quite stunning color groupings can be produced in this way. Probably this is the nearest we can come practically to those decorative color effects so dear to the imagination of the good lady who has learned her landscape gardening in the school of interior decoration.

It may be well to point out that these beds for perennials must have a certain size. If they are less than three feet wide they will hardly contain the required materials. If they are more than eight feet wide they are hard to maintain. Beds 12 or 15 feet wide are sometimes attempted, but the cost of maintenance is excessive and the pictorial effect is not correspondingly enhanced.

Objection has been made to the whole art of bedding on the score of its ephemeral quality. This criticism is not without point, but it is met by good gardeners by providing a succession of materials. In early spring the garden beds are aflame with tulips and hyacinths or are laughing with pansies. As soon



Old-Fashioned Garden Knots
Illustrating Radial Design in Small Areas

as these are gone the summer flowers are ready. Even winter may have its provision of evergreen material. Though it is to be remembered that a good many gardens are deserted in the winter months. Opulent citizens have country places for gardening and city homes near the grand opera for the winter. Many public parks turn attention in winter from

the gardens to the skating and the skiing. Thus one of the stock strictures upon the practice of "bedding out" is greatly mitigated by ineluctable circumstances.

EDGINGS

Flower beds in formal gardens are often edged with box or other materials. I have seen such edgings made of telephone insulators or of inverted beer bottles, though I do not now recommend them. Box, myrtle, dwarf euonymus are typical and generally to be preferred, though almost any slow-growing shrub which can be kept closely sheared will pass the requirements.

Special bedding plants are also used for these edgings. In this category would be named stevia, sweet alyssum, etc. Dwarf iris has been a favorite in many old gardens.

XIV

THE FRONT YARD



ONE day my friend, a street-car conductor, asked me where he could get a red shrub. As I did not immediately get the drift of his inquiry he explained: "You see there was a tree-agent came along last year and sold my wife a yellow shrub. She planted it on the east side of the walk and now I want to get a red shrub to balance it on the west side."

The picture is a vivid one. The little front yard, a strip of lawn twenty feet wide between the house and the sidewalk, bisected by a walk running from the door to the street, and on either side a bush. Only one was to be red and the other yellow for variety's sake. So here we have Design, Unity, and Variety—the whole of Art!

Here we have, too, the typical American front yard. Nothing much like it is to be found anywhere else in the world. It is democratic—open to the world. It is domestic, expressing the owner's pride in his home. It is not devoid of a sense of decorative design. On

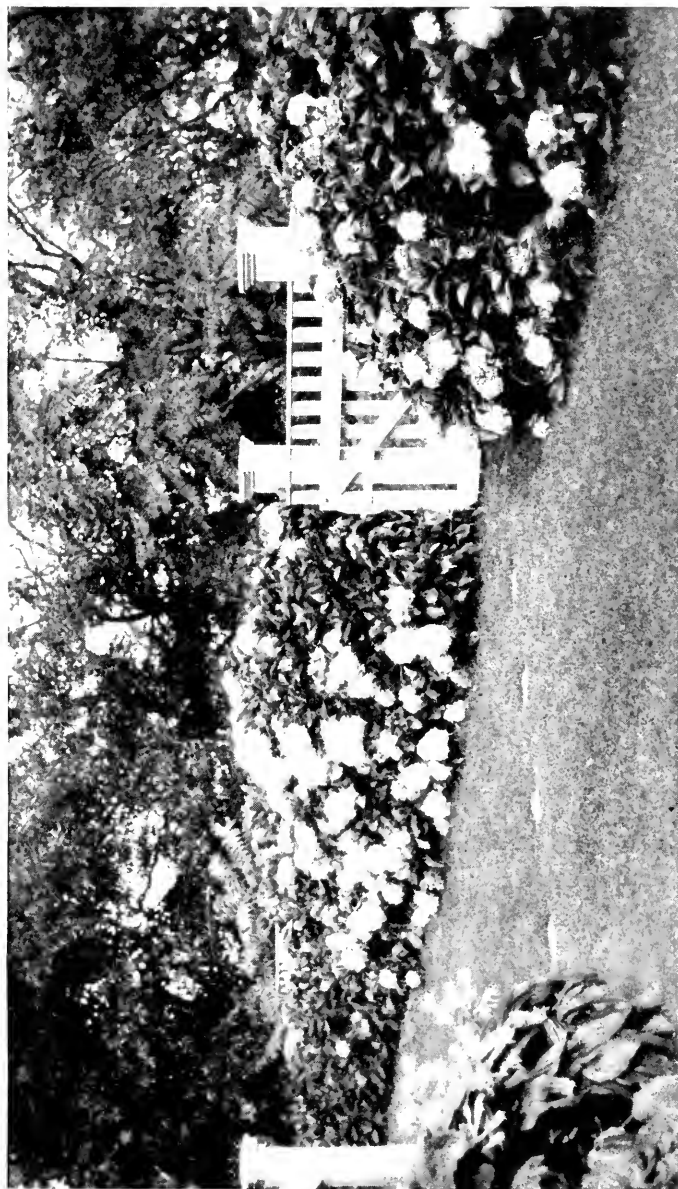
the contrary it shows a very strong feeling for unity and balance. It is a native species of landscape architecture much more typically American than the millionaires' country club or than Mrs. Millionaire's French chateau and Italian garden.

Nothing could be gained by railing at such an institution, if indeed anyone had the heart to find fault. In one way only can such a situation be approached with hope, and that is in the way of developing a better taste for the application of the popular formula. The American front yard can be improved: it should not be abolished.

FRONT YARD FORMULA

Let us examine this formula more closely.

We may begin by recalling the sound principle that the usual home grounds are to be divided generally into three parts (See page 44) one of which should be the front yard. The first item in popular practice concerns the depth of this yard. There is manifest a somewhat general tendency to set the house well back from the street, the idea being, apparently, to give the house increased dignity and to enlarge the front yard. If the private



A COLONIAL FRONT YARD, NANTUCKET, MASS.



OLD COLONIAL YARD AND DOORWAY, NANTUCKET, MASS.

garden at the rear of the house is mostly neglected this tendency may go unchallenged. But if the householder can come to the point of making the most of the private garden, then the front yard should be limited to a narrower strip, the space thus gained being used in the family garden.

Next we observe the tendency to build a social porch upon the front of the house overlooking the front yard, the traffic of the sidewalk and the whole street. This is a very American symptom, too, and clearly manifest, especially in poorer neighborhoods. It can hardly be justified, either socially or artistically. The porch where the family sit and where they visit with their guests might much better be at the rear of the house where it would be less vulnerable to the noise and dirt of the street and where it would have much greater privacy. It may be argued, of course, that privacy is just what these citizens do not want: they prefer to see who is passing in the street and at times to visit with these passersby. Yet it must be answered that privacy is what these Americans ought to want. They are not Frenchmen who prefer to eat off the sidewalk. And even the Frenchman makes his

own home more private than these Americans. In this matter the American is the victim of a vicious habit.

One radical improvement in the front yard formula, therefore, could be made by banishing the social porch forever to the rear of the house, leaving the front door sheltered by a single canopy, or something a little less or more, as good architectural design might dictate.

Another American tendency, combined with the one last mentioned, is to set the house high out of the lawn. Nine houses of every ten to be seen on the ordinary streets stand too high to look their best. The appearance of many homes and of their front yards would be improved by placing the floors lower—say, not more than eighteen inches above the ground level, often less.

This has its immediate relation to foundation plantings. These plantings are a part of the formula, widely recognized as “the proper thing.” If the house is brought comparatively near to the street and kept comparatively low then it follows that the foundation plantings, instead of being tall and woodsy, may be small, low and trim. They become simpler and more

formal, as befits a front yard; for simplicity and formality also characterize the entrance hall within the house.

Next there is the walk to be noticed, leading to the front door. Unless the land requires a terrace, a retaining-wall or similar unusual engineering, this front walk ought to be simple, straight and at right angles to the house front. Other arrangements are false and usually look silly, *e. g.* walks made in the form of an S with the fatuous intent to have something natural or graceful.

The present tyrannous vogue of cement makes many a front walk more harsh than it need be. Walks of brick or gravel would often be better. And the writer confesses to a liking for the old custom of edging these walks with dwarf box, euonymus, or even with iris, though of course this sort of thing must be done with discretion, being sometimes quite inappropriate.

Shall there be edging of plants along the street line next the sidewalk? Common practice says no, and this point in the great American formula may be allowed to stand. Often one sees small clumps of barberries, or similar shrubs planted at either side of the front

walk where it joins the sidewalk. These plantings have two purposes: first to prevent the traffic from cutting the corners and second an intent to make them ornamental. Their decorative value may be seriously questioned, and it is best under most circumstances to omit such plantings altogether.

The front yard will also be crossed by a service walk and perhaps even a service drive, particularly if there be a garage to be reached. These two service ways should of course be as inconspicuous as possible, and as nearly as possible should occupy the extreme edges of the yard next to the property lines. It will be better still if these two service ways can be combined into one.

Following the popular formula to this point we have a space of smooth lawn at the front of the house cut by a straight walk into two nearly equal parts. The tendency to plant something in the middle of these two spaces is, to a certain type of mind, quite irresistible. My friend, the car conductor, wanted a red shrub on one side and a yellow one on the other. Usually the formula calls for a matched pair; and as this same type of mind leans heavily toward freaks and curiosities, the choice



COLONIAL STYLE, DOORWAY, HEDGED YARD AND BRICK WALK, AMHERST,
MASS.



FENCE AND GATES, CHARLESTON, S. C.
FRONT DOORWAY WITH PAVED COURT

often falls on Bunge's catalpa, weeping mulberry, blue spruce or other monstrosity. For they are all bad. If these green panels of lawn simply must be broken a circular flower bed on either side is the least objectionable answer; but it would be much better to leave these centers open. Decorous plantings at the two sides, toward the property division lines, may be all right. These with the foundation plantings against the house and possible edgings along the front walk, already discussed, ought to be enough for the front yard. A vine climbing over the small door-porch may be reckoned a part of the foundation planting.

The introduction of vases, cast-iron statuary, bird baths or similar features into the front yard is always in bad taste and fortunately is not popular.

Summarizing our findings we discover the fact that the American front yard represents a native cultural formula. This formula has its good points and its defects, the former largely preponderating. This front yard is a logical and proper unit in a larger scheme. When properly separated from the private grounds and the service yard it may become a feature of real artistic value. Its develop-

ment tends inevitably to proceed upon lines of formal design. A natural style of landscape gardening here would be futile and ridiculous. Formality, dignity, restraint and simplicity are the qualities most to be sought. If one could combine with these a certain richness—velvet lawn, fragrant box, a good walk of brick or tile, a well-designed and inviting front door—the result would come as near perfection as we common people are accustomed to arrive.

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